CONTENTS

OF THE

NEW JERSEY MEDICAL REPORTER.

TENTH MONTH, OCTOBER, 1849.

ORIGINAL COMMUNICATIONS.

Medical Miscellany.—By the Editor.

Milk Abscess 1
The Manual Delivery of the Placenta, ... 3
Vascular Excrescence on the Hymen, ... 5

Two Cases of Puerperal Convulsions. By D. B. Trimble, M. D. 7

BIBLIOGRAPHICAL NOTICES.

Report of the Medical Department of the University of Pennsylvania, for the year 1849, to the Alumni of the School. By the Medical Faculty, ... 13
Report on the Practical Operation of the Law relating, to the Importation of Adulterated and Spurious Drugs, Medicines, &c. 15
A Practical Treatise on the Diseases of Children. By J. Forsyth Meigs, M. D. 16

EDITORIAL.

Our Third Volume, ... 19
A Card.—Adulterated Drugs and Medicines, . . 20

Obituary Record, - - - - - - - 22

Medical Appointments and Editorial Changes, - - - 23
Medical Department, U, S. Navy. - - - - - 24

ECLECTIC DEPARTMENT.

An Account of a Malignant Epidemic, (Congestive Typhus,) which prevailed in the early part of 1849, at. and in the vicinity of Mecklenburg. By Nelson Nivison, M. D. - - 25
On the Modus Operandi of Quinine in Intermittent and Remittent Fevers. By D. Warren Brickell, M. D., of New Orleans, 36
The Cholera—its Course and Ravages, - - - - - 39
Stricture of the Œsophagus, - - - - - - 42
Chronic Hiccough of Seven Years' Standing, following Whooping Cough, cured by Strychnine. By John G. F. Holston, M. D., etc., of Concord, - - - - - - - 43
On Malaria. By Samuel Henry Dickson, M. D., Professor of Theory and Practice of Medicine in the University of the city of New York, - - - - - - - 46
On the Sulphate of Iron in Chlorosis. By Richard Jarrot, M. D. of Quincy, Florida. - - - - - - 68
Point of a Sheath-Knife in the Back, Nine Years—Removal. By George H. Guy, M. D. - - - - - 75
Lemon-Juice in the Treatment of Rheumatism and Dysmenorrhœa, 78
On Cod Liver Oil in Phthisis. By Dr. J. C. B. Williams, - - 80

NEW JERSEY MEDICAL SOCIETY.

The Semi-annual meeting for 1849 will be held at Camden, on the second Tuesday of November ensuing, at 10 o'clock, A. M.

DISTRICT MEDICAL SOCIETY FOR BURLINGTON COUNTY.

The Semi-annual meeting will be held at Mount Holly, on the third Tuesday of October, at 10 o'clock, A. M.

The Board of Censors will be in session, for the examination of candidates.

B. H. Stratton,
Geo. Haines,
J. W. C. Evans,
Zach. Read,
Joseph Parrish,
} *Censors.*

ERRATA IN VOL. II.

Page 253, last line, for *recourses* read *resources.*

Page 255, line 18 from top, for *difficulties* read *difficulty.*

Page 256, line 23 from top, omit the article "*the.*"

Page 256, line 30 from top, for *employments* read *employment.*

Page 256, line 4 from bottom, for *professors* read *possessors.*

Page 258, line 24 from top, for *and Goldsmiths* read *and its Goldsmiths.*

Page 258, line 2 from bottom, for *exist* read *exists.*

Page 263, line 4 from bottom, for *and not subserve* read *and subserve.*

Page 265, line 3 from top, for *exceptionable* read *exceptional.*

Page 267, line 8 from top, complete the unfinished sentence by adding—I may remark that this process requires, in reference to medical inquiries, to be conducted with great sagacity and caution.

Page 268, line 4 from top, for *of functions* read *of the functions.*

Page 268, line 25 from top, for *vicera* read *viscera.*

Page 268, line 3 from bottom, for *system* read *systems.*

Page 270, line 8 from bottom, for *constitute* read *constitutes.*

Page 274, line 6 from bottom, to make the allusion to *certificates* intelligible, the paragraph commencing with "I would not," &c. should be preceeded by the following sentence—The regulations of our State, which require a shorter term of study from those who are provided with a collegiate diploma, are therefore founded on a just appreciation of the importance, to the medical profession, of the discipline afforded by the branches of preliminary education to which I have referred, and which are taught in the institutions whence these diplomas emanate.

Page 276, line 5 from bottom, for *then* read *there.*

THE

NEW JERSEY MEDICAL REPORTER.

VOL. III. TENTH MONTH, (OCTOBER,) 1849. No. 1.

ORIGINAL COMMUNICATIONS.

MEDICAL MISCELLANY—By the Editor.

MILK ABSCESS.

There is no accident to which the parturient female is exposed, more dreaded by herself, than what she designates a "gathered breast;" and having been once afflicted with this kind of abscess, she anticipates its return, on every occasion of her *lying in;* hence it is of importance, as well for the success and reputation of the accoucheur, as for the comfort and well being of his patient, that such an occurrence should be averted, if possible. And as the testimony of all writers upon the subject is united in support of the opinion, that there is no phlegmonous inflammation, which takes on the suppurative process, with more certainty, or rapidity, than that which attacks the female mammæ—to procure a resolution of the inflammatory action, is manifestly the first indication to be met, and the most desirable object to be gained; but experience has proved how fruitless the most active measures have been, may it not be said, in the majority of cases! Saline cathartics, local or general bleeding, as well as a variety of external applications, have been employed in the practice of the best and wisest men; but with what success, the painful history of the past, abundantly testifies. The late Dr. Dewees, whose reputation in this department of

science, entitles his testimony to the highest regard, recommends bathing the breast with warm vinegar, as the most successful application in his hands; to be conjoined of course, with the usual constitutional remedies, for inviting the blood to other parts of the system, and reducing the local inflammation. It is true, that the failure to resolve the inflammation may frequently be the result of carelessness on the part of the attendant, or of injudicious management in the early stage of the malady; but the "pertinacity of its course," to use the language of Dr. Dewees, is a peculiarity of mammary inflammation, which renders it capable of resisting in a great many cases the most active antiphlogistic treatment. During the first few years of my practice, I had frequently to lament the ill success of remedies, which I had learned to estimate as powerful resolvents: and notwithstanding the most faithful perseverance in their application, I was frequently obliged to abandon them, and substitute supporting constitutional remedies, with such external means as were designed to aid the suppurative process. And it may not be considered presumptuous in me to say, that after repeated trials with a variety of unguents and liniments, I have abandoned them all, except the following, which I use in nearly every case of mammary abscess, and generally with entire satisfaction.

R. Ung: Tabaci: oz. ii.
Pulv: Camph: drchm ii.
Ext: Belladon: drchm iss. ft: ung:

The Belladonna is not always used, though I do not know that it is ever inadmissable. The tobacco ointment was first introduced to my notice by Wm. J. Allinson, an apothecary of this city, who makes it in a manner somewhat different from the officinal formula: vinegar or sour cider being used in the preparation, thus meeting in some measure the suggestion of Dr. Dewees. The tobacco ointment, itself, is a good application, but the addition of camphor, renders it more agreeable to the patient, counteracting in some measure the unplea-

sant odor of the tobacco, and adding probably to its curative powers. It frequently affords relief even after the acute, lancinnating pain, and chill, which characterize the onset of the suppurative stage having been developed, and the tumor presents that glazed appearance which precedes the pointing of the abscess. I have a lady under treatment at this time, who has suffered from milk abscess after each of her confinements, (four in number,) so that the breast has become entirely useless to her; not being aware of this fact when she came under my care a few weeks since, my attention was not particularly directed to the breasts, till on one of my visits, I found she had had a chill, followed by fever, and sharp, cutting pains in the left mamma; the gland was much swelled, and just under the nipple was a shining protuberance, indicating the locality for pointing. A muslin cloth the size of the gland, was spread with the ointment and the whole surface covered with it immediately,—the nipple presenting through an opening in the muslin. In about twenty-four hours, the application being frequently repeated, the pain and induration were partially relieved, and the patient gradually recovered. Within the last two years I do not recollect to have seen a "gathered breast," though my opportunities for meeting with this form of disease have been four fold, in comparison with any former period—but I have frequently seen in that time the mammary gland swelled, painful, and threatening suppuration. Constitutional means are not of course omitted in cases where their usual signs are present.

THE MANUAL DELIVERY OF THE PLACENTA.

There appeared in one of the recent numbers of the Buffalo Medical Journal, some observations on the manual delivery of the placenta, exhibiting the practice of the distinguished editor of that periodical, in this respect, which were particularly gratifying to me, as a corroboration of the practice pur-

sued by myself, and it is believed, by a number of others; though to deliver the secundines immediately after the expulsion of the child, is not in conformity with the teachings of the schools. To wait twenty minutes, or half an hour, for the natural powers of the uterus to complete this last effort of labor, is the generally adopted practice; it has so been taught by the most eminent men, and on that account is worthy of great respect, and ought not to be changed without sufficient evidence to warrant a different course. About one hundred and thirty obstetric cases have come under my care within the past year, and the practice has been adopted in each of them, without any untoward result being apparent. Immediately after the chord is separated, and the child removed, the left hand is applied over the fundus of the uterus externally, and pressure continued for several minutes, while slight traction is made upon the chord by the right hand. If by this manœuvre, the attachments do not readily yield, the right hand is at once inserted into the vagina, or uterus, as the case may require, and the edge of the placenta hooked by the index finger, or the whole viscus embraced, and dislodged from the uterus; at the same time the nurse is directed to make friction over the lower part of the abdomen. Is it not reasonable to conclude that alarming uterine hemorrhage may be prevented by this practice, as the womb is made to contract speedily, and empty itself of its contents, by thus abruptly shutting up the mouths of the vessels which communicate between the maternal and fœtal circulation? If the placenta is allowed to remain, separated as it generally is, from the fundus-uteri, and embraced by the cerix, there is a space left in the cavity of the womb, which may be speedily filled with blood from the ruptured vessels at the fundus, and the woman suffer exhaustion from loss of the vital fluid, while the accochoeur is patiently waiting for the operation of nature. The fear of after pains is also materially lessened, as they mainly depend upon

the presence of coagulated blood in the uterus, which may be more readily and completely removed, by keeping up the tonic contractions of the womb until all its contents are evacuated. The child is expelled by a powerful muscular effort; and when thrown out from the womb, the stimulus of its presence being removed, and the uterus not sufficiently contracted, it is necessary to supply an artificial stimulus by the hand externally, and if need be, by contact with the internal surface, in order to complete the uterine action, and save the woman the suffering of after pains for several successive days, as well as relieve her from the risk of immediate hemorrhage. These suggestions are made after a fair trial of the practice, and are communicated to the profession for consideration.

After the birth of the child, not more than five minutes need be allowed, in ordinary cases, for the completion of the whole process—the placenta being removed, and the uterus brought down into the pelvic basin, without the presence within its cavity of any offending body, to act as an irritant to its fibres, and cause the patient to suffer under their continued contraction.

VASCULAR EXCRESCENCE ON THE HYMEN.

About a year since, I was consulted, by an anxious mother, about her daughter, a tall, handsome girl of seventeen, who appeared to enjoy good health, but who complained frequently of great pain in passing her urine, and suffered considerable inconvenience from walking, owing, as the mother thought, to a morbid growth, which, in her opinion, existed somewhere about the genitals; and which, so far as she could judge, protruded between the pudendi. This was the statement made to me, and, as I replied that nothing could be done without an examination, except by the employment of emmolient and anodyne applications, I lost sight of the patient till about a month ago, when I was re-

quested to visit her. She was in bed, with headache, and fever, and complained of severe pain in the part alluded to. A saline cathartic was administered, and a warm flaxseed poultice, with camphor, applied, from the pubes to the os-coccygis. The bowels were freely evactuated in a few hours; the fever abated, and the next day she was prepared to submit to an examination. I expected to find an enlargement of the clitoris, but on separating the labiæ, this organ was seen to be no larger than usual, but a soft vascular excrescence presented itself upon the body of the hymen, about an inch below the orifice of the urethra. It was extremely sensitive, and resembled somewhat, a small strawberry. The slightest touch was attended with extreme pain, and even the contact of the lubricated surface of the labiæ, except during perfect rest, in the horizontal posture, was the cause of constant complaint. The urine, coming in contact with it, in its passage from the urethra, created the extreme suffering which had been complained of during the progress of the case.

The tumor was such as I had not seen before,—its location was certainly peculiar, and the treatment to be pursued, it seemed must be entirely experimental, as nothing that had come under my observation in the past could be referred to, as an example, to be governed by, now. To excise it, seemed dangerous, on account of its extreme vascularity. To pass a ligature around its base, and allow it to slough, would be an operation almost too painful to inflict upon a sensitive girl, if any other mode of curing could be adopted; and yet the disease was of too grave a character to allow of temporizing treatment. These thoughts passed in my mind as I looked upon the trembling girl, fearing, as she did, some dreadful operation; and I determined to apply the solid nitrate of silver. This I did immediately; and the application was followed by loud screams of anguish which continued for several minutes, but the pain soon subsided, and the

nurse was directed to bathe the part with tepid water and laudanum, several times daily. Under the use of caustic, applied two or three times a week, perfect rest being enjoined, she has been enabled to resume her household duties, and is convalescing.

Whether this is the same class of tumors described by Hossack and Mutter in papers published in the American Journal of Medical Science, I do not know. They are described under the name of "Irritable Tumor of the Urethra," and were found always in the urinary canal. They were considered as tumors mainly composed of erectile tissue, and were cured by excision.

TWO CASES OF PUERPERAL CONVULSIONS.

BY D. B. TRIMBLE, M. D.

Case 1st—Was that of Mrs. W—, aged thirty, of good general health, sanguine temperament, cheerful disposition; but some hereditary predisposition to apoplexy.—This patient had had four abortions between the third and fourth months of pregnancy, but had never had a child. I was called to see her on the 7th of May—then about seven months advanced in pregnancy, when I found her affected with severe head-ache, pains in the loins and abdomen; moderately full, but frequent pulse; flushed countenance; eyes turgid and staring, and constipation of the bowels. She had had an excellent appetite for the last month, and had grown rapidly corpulent. An examination per-vaginum showed the os-uteri to be undilated, and having had considerable difficulty in preventing abortion two months previously, I endeavored to pursue a middle course, and therefore directed twenty leeches to be applied to the temples; a gentle aperient, cold applications to the head; rest, and light diet—8th, better; the uterine contraction had ceased; pain in the head less severe; countenance less flushed; constipation relieved.

In the evening, head-ache returned, countenance flushed and swollen. Attempted bleeding, but she became faint, and I desisted; applied sinapisms to the extremities, and continued the cold applications. 9th—saw her early in the morning—expecting to be absent until late in the day; prepared to bleed her again, when severe vomiting came on, and being hurried, ordered cups to be applied to the neck, and if this did not relieve, to send for a medical friend. About an hour after I left she was severely convulsed, and at the time bled largely. Vomiting continuing, she was directed to drink soda water. I saw her in the afternoon, when I found her quite delirious, countenance bloated; one eye apparently protruding, and blood shot; pulse soft, small and frequent; continued the prescription. 10th—Mental perceptions rather clearer; vomiting continued; eye and countenance retained the same appearance. In the afternoon substituted for the soda water, Soda-Bicarb, gr. iii.

Morph. Sulph, gr. ½.

Sig: take one every hour until relieved. After the second powder, she was not troubled with the vomiting. Applied blisters to the temples. 11th, Slept well;—pulse slower, fuller, and countenance more natural; mind calm, has felt no motion of the child since the convulsion. She continued to improve, having no unpleasant symptoms up to the 29th, when she left her chamber, and continued well, (with the exception of occasional slight pains in the hypogastric region,) until the night of the 8th of June, when there was active contraction of the uterus, and the membranes were ruptured. After this there was no more pain until the next night at 10 o'clock, when they returned, and continued regularly, until 4½ o'clock, A. M., of the 10th, when she was delivered of a fœtus in a state of partial decomposition. She is now as well as she could be in any confinement—not an unpleasant symptom supervening. (Oct. 1.—Has continued in good health, with one slight exception.)

Case 2d—Mrs. W—, a lady of fine and active intellect, full, plethoric habit, short neck, strong circulation; twenty-seven years of age, and seven months advanced in her first pregnancy, sent for me on the 24th of May, on account of severe head-ache, accompanied with constipation. I took about fifteen ounces of blood from the arm, and directed her to take a purgative. This relieved her for three days, after which the pain returned, accompanied with somnium. She had been much agitated on hearing of the foregoing case, and told one of her friends she also expected to have convulsions. At 2 o'clock, A. M., of the 30th, I was again called to her; found that she had had two convulsions, and was then delirious. I attempted to bleed her, but her extreme agitation induced me to defer it; she was soon after, affected with vomiting, which was succeeded by another convulsion of great severity. I then took sixteen or eighteen ounces of blood from her arm, with considerable reduction of the pulse, but she remained in a comatose state after the subsidence of the paroxysm. I prescribed Hydrarg: Chl: Mit: gr. x. to be followed by Magnes: Citras: ℥ viii—which produced copious dark alvine discharges; directed a large blister to the back of the neck, and sinapism to the extremities. From seven to eight o'clock, A. M.; she had three more convulsions, equal to the former in violence; directed twenty-six leeches to be applied to the temples, her hair thinned, and ice applied to the cranium. Examined per vaginum—and found the os-uteri rigid. She continued in this condition until 6 o'clock, P. M., when the convulsions returned, and she had three more of the same severity. I then requested that my experienced and talented friend Dr. Phillips, of Bristol should see her, and he arrived at 8 o'clock. We then bled her about twelve ounces, but without perceptible advantage. Bowels still free. Had her head shaved; a large blister applied over the superior and anterior portions of the cranium, and ice to the remainder of the head. 31st, Morn-

ing—no amendment; os-tincæ still undilated. Afternoon, 3 o'clock, Dr. P. saw her again; we again bled her, and prescribed Hydrarg: Pro: Chlr: in gr. ss. doses, every hour to produce ptyalism. At this time, I thought there was slight symptoms of labor, but being hurried, did not remain. At 9 o'clock, P. M., her friends were very much alarmed, lest the convulsions should return, as she was very restless. I found she was in labor, and that the os-uteri was dilated one and a half or two inches. At 11 o'clock, P. M., she was delivered of a dead child, and remained quiet the rest of the night. At 5 o'clock, A. M., on the 1st of June, consciousness began to return, and when I saw her at 7 o'clock, she knew me. Dr. P. saw her at 7½ o'clock, and our hopes were buoyant. We now omitted the calomel, continued the ice to the head, enjoined perfect quiet, light nourishment, &c. At 11 o'clock, A. M., our hopes were again depressed, as the convulsions returned with all their former intensity; she had three in quick succession. I saw her at 12 o'clock. She was again comatose. I bled her again—about fifteen ounces. At 2 o'clock, P. M., consciousness had returned; recommenced the calomel at intervals of two hours; and sinapisms were again applied. Her mind now seemed unclouded, though she complained of great pain and throbbing in the head, and pain in the abdomen. 2d, Symptoms improving; pain in the head unabated, but abdominal pain nearly relieved. Bowels open. 3d, Continued to improve—though head-ache continues.—Slight ptyalism. Dr. Phillips discontinued his visits.

4th, Pain in the head increased; more inclination to sleep; considerable pain in, and some tumefaction of abdomen; lochia suppressed. Applied twenty-four leeches to temples. Afternoon, gave Ol: Ricini ℥i—sinapisms to feet. 5th, Profound sleep, great difficulty in arousing her; stertorous respiration; severe pain and soreness—and great enlargement of abdomen; pulse, moderately full, very frequent. Bled her, the fifth time—largely; administered an active dose of Mag-

nes: Citras. Evening, symptoms slightly improved; applied blisters behind the ears, and above the ankles. 6th, Abdominal swelling subsiding; lochia somewhat increased; breasts swollen; somnolency, rather less; stertor continued. Prescribed Antim: et Potass: Tast: gr. ii. in Aqua f℥ viii—a table-spoonful to be given every hour. Pulv: Digitalis: gr. iii. every two hours. Evening—milk fully secreted; abdominal swelling and tenderness subsiding; less inclination to sleep; considerable ptyalism. The stertorous respiration continued up to the 9th, gradually abating—since when it has been very slight, and is now entirely relieved:—continued the last prescription until the evening of the 10th, when the Tart. Antim. was discontinued; and twenty-four hours after—(the pulse being soft and much slower)—the Digitalis also. All abdominal pain has ceased; pain in the head is slight, her mind is clear and cheerful, and she is decidedly convalescent.

June 13th, 1849.

Oct. 1st. In reviewing this case, I am led to believe from the continued insensibility, that considerable cerebral effusion must have taken place; and that her recovery from so severe and dangerous a condition of the system, was chiefly owing to the active depletion unloading the surcharged vessels, and that enabling them the more readily to re-absorb the effused fluid; and also to the effect of the mercury in increasing the activity of the absorbents.

This patient continues in good health, but there is an increased excitability of the system,—and a slight cause would probably induce convulsions.

Since the perparation of the notes of these two cases, I have had a third, which unfortunately, had not the successful termination of the first and second cases. It was the case of a delicate woman—aged 26—three months in her second pregnancy—and about ten days convalescent from an attack of dysentery—when she was attacked, whilst alone

with a convulsion, and in the course of three weeks had nine—the last of which proved fatal. Dr. Phillips also saw this case with me, and the same course, (though not so actively, owing to the delicate constitution of the patient) was pursued, as in case second. It differed from that case in there being entire sensibility after the subsidence of the paroxysm, and but little stertorous breathing. On the Saturday previous to her death, she had three convulsions; one the next day, and no more until the following Thursday at half-past two o'clock, P. M. I did not see her until 4½ o'clock, when I found her with slow and labored respiration, but as strong and frequent a pulse as she had had for a week. It continued to beat freely though slowly for some time after the last expiration—at 5 o'clock.

This patient, as well as the second one, had convulsions in her infancy; and the family appear to be predisposed to this affection; as her mother informed me, that she had lost five out of her ten children with the same disease; one, a daughter of the same age, and under similar circumstances.

BIBLIOGRAPHICAL NOTICES.

Report of the Medical Department of the University of Pennsylvania, for the year 1849:—*to the alumni of the School. By the Medical Faculty, Philadelphia.*

We cannot do justice to this Report by remarks of our own; and hence we copy the following extract from it, to enlighten our readers upon the success which has followed the reform policy adopted by the University, in conformity with the wishes of the American Medical Association.

"The Faculty assure their friends that there has been no lowering of the grade of attainment required of the candidates; and they believe that, on no preceding occasion, has a class of graduates left the Institution better instructed in the elements of their profession than that of the present season. Indeed, it is the impression of the Faculty that, owing to the considerable extension of the courses of instruction, they can perceive a greater general proficiency in the students than in former years. Upon the whole, therefore, whether in relation to the number of pupils, or to efficiency in imparting knowledge, the University has never been in a more prosperous condition than at this time. The Faculty have the more gratification in announcing this fact, as it proves that the policy which they adopted in the last two sessions, in accordance with the general sense of the profession, as expressed by the National Medical Convention, and subsequently by the American Medical Association at two annual meetings, was a correct policy, so far at least as correctness can be tested by success. It proves, too, that, in relying upon the profession in a course of proceeding, doubtful in its personal results to themselves, but clearly advantageous, in their honest opinion, to the general medical interests of the country, they have not exhibited a false confidence, or rested upon a fallacious support.

"In relation to the future, the Faculty would be true neither to themselves nor the profession, were they to draw back from the course of advancement upon which they have en-

tered. At the last two sessions, the regular period of instruction was five months and a half. At the next session, they propose to extend it to six months; the period which they deem most conducive to the true interest of the student, and which the American Medical Association has recognized as the standard to be aimed at by the schools. As three years of study, and attendance upon two courses of lectures in the schools are required of the candidates, it is thus seen that two-thirds of the whole term are to be devoted to private study, and only one-third to scholastic instruction. It appears to the Faculty that no one, familiar with the vast amount of various knowledge which it is now necessary to impart to the student, can consider the latter period disproportionately long. Either our forefathers must have erred greatly in exacting from the pupil an attendance for four months, when the number of branches separately taught, and the amount of instruction given were much less than at present, or we ourselves would assuredly be wrong in crowding the increased matter into the same space of time. The four months' system was adapted to an infant condition of the country, and a certainly much less mature state of the science than now exists; and to allow ourselves to be hampered by regulations suited to former times, would be to stand still while everything is advancing around us, and thus relatively to retrograde in the great march of human improvement.

"Another point upon which the Faculty feel no little solicitude is the due preliminary education of the student. The desirableness of such an education, as well as for the habit of study which it establishes as for the knowledge acquired, is denied by no one; and the only question is how far it can be demanded as an essential prerequisite to graduation. The Faculty do not despair of seeing the time arrive when this requisition may be made by the schools; but the object is one rather to be kept constantly in view, and to be attained gradually, than to be accomplished at once by a positive regulation. In this matter the profession must co-operate with the schools. There must be a general conviction in the medical community of the necessity of the measure; and the first barrier against the intrusion of ignorance into the profession, must be at the door of the private office. When public professional opinion shall have become so enlightened and influential as to produce a general attention to this point, the schools may then step in, and make the requisition posi-

tive and universal. In the meantime, they may aid materially in the attainment of the end proposed, by lending their countenance to the principle involved on all suitable occasions; and the Faculty, in order to perform their own part, earnestly request that each pupil may bring with him a certificate from his preceptor, stating the length of study and the possession of a due preliminary education when ascertained; so that such notice may hereafter be taken of the facts reported, as may seem most conducive to the desired object.

"In taking leave of their friends, the Faculty ask permission to join their congratulations with those of the enlightened members of the profession generally, upon the spread of a liberal and elevated public spirit among the great body of medical men, and the hope which it holds out of a steady advance in all that can adorn and dignify their calling, and increase its efficiency to the great ends for which it exists.

"*Philadelphia, July* 12, 1849."

Report on the Practical Operation of the Law Relating to the Importation of Adulterated and Spurious Drugs, Medicines, &c. By M. J. BAILEY, M.D. *Special Examiner of that class of Merchandise in the United States Customs at the Port of New York. Read before the New York Academy of Medicine, June 6th,* 1849.

This able document, published by the Academy of Medicine of New York, has reached us through several channels, and we take great pleasure in briefly noticing its contents, as the importance of the subject of which it treats, and the high authority from which it emanates, entitle it to the consideration of the profession. The law took effect in New York on the 12th of July, 1848, and the result of the inspection which has been instituted, through M. J. BAILEY, the Special Examiner, for that port, produces an aggregate of 90,000 pounds of various drugs that have been rejected; and though the project met, in the beginning, with great opposition from certain *speculators* in medicine, who depended upon the practice of adulteration for their daily bread, the developments exhibited by statistics, which are embodied in the Report, will fix the law, as we trust, beyond the reach

of repeal, and be the means of executing justice upon those who have practiced, or who may hereafter practice, imposition in the sale of medicines. In addition to adulteration which comes from abroad, the writer of the Report calls attention to the fact that there exists a domestic method of sophistication, which is not distinctly reached by the law relating to *imported* drugs. We copy the following extracts:

"It will be seen that as far as sophisticated chemical and medicinal preparations are concerned, we have now but little to fear from the foreign manufacturer and speculator, while we have *increased* cause for unceasing vigilance at home, not only as respects the finer preparations, but also that almost equally important class of medicines known to the trade as crude drugs, to wit: opium, barks, roots, medicinal gums, &c. &c. whether in a natural or powdered state; and while each and every article requires at all times the particular attention and scrutiny of the dispensing apothecary and physician, I will here remark, that the article sold and purchased under the entirely too comprehensive name of *Peruvian bark*, requires, in my opinion, much more attention than it has heretofore received either from the apothecary or the profession. It will be seen by the statement submitted, that the quantity of spurious and worthless cinchona barks which I have thus far rejected, amounts altogether to some thirty-four thousand pounds; and why have I rejected it? Simply because the article containing none, or but a trace of the natural alkaloids of the *true* barks, and consequently possessing no febrifuge properties, is of no more value as a medicine than any other moderately bitter vegetable substance, while at the same time, it is not only unsafe, and improper, but on account of the large excess of woody fibre it contains, decidedly dangerous to be administered in cases where the genuine bark in substance is called for.

"The several barks here alluded to, although differing in physical appearance, are those generally known in the trade as the red and yellow Maracaibo and Carthagena barks; and as they resemble the true officinal barks in color, they have long been used in a powdered state for the purpose of adulterating those barks, or sold to the unsuspecting as the genuine article. This fact shows very clearly why it has long been almost impossible to find on sale in the country, or

even in any of our minor drug and apothecary establishments in town, one pound of the red or yellow cinchona bark of the requisite strength and purity; or, in other words, that will afford, on analysis, a per centage of alkaloids corresponding with that produced by the genuine barks. Some samples that have been obtained afforded neither quinine nor cinchonine in any perceptible quantity!! Others less than one fourth part of the alkaloids found in the true and pure barks; and so upward, according to the extent of the adulteration. From the quality of samples that have been forwarded to me from a distance, I am satisfied that the country is filled with such base mixtures and worthless trash; and it will take some time, with all the watchfulness that the profession can exercise, to get rid of the evil; an evil that must be deeply felt in those sections where the peculiar type of their fevers calls for an almost constant use of the cinchona in one form or another."

To the deficiency of knowledge which exists among the profession in *analytical* chemistry, may be attributed a great deal of the oversight and negligence apparent with physicians and apothecaries, in regard to this subject, as it is certain that the practical benefits of the drug law must depend greatly upon the correctness of the analyses that are made, and that the soundness of the conclusions deduced from analytical investigation, must of course grow out of the minuteness with which the science is studied. In conclusion we insert the following paragraphs, taken from the Report, on this subject.

"As the progress of medical reform, with us, *must* hereafter be onward and upward, urged forward, as it is, by the most brilliant lights of the profession—men who are destined to occupy the highest niches in the temple of fame; it is to be hoped that our medical institutions will soon make such addition to their requirements and means—notwithstanding it may subject the student to a somewhat greater expenditure of time and money—as will enable the professor of chemistry, without pecuniary loss, to afford his class such extended and increased facilities as with proper attention will not only render them proficient in the science of analysis, but expert manipulators. Again, should each institution supply itself

with an extensive, conveniently arranged, and well selected cabinet of materia medica, for the use of the professor of that science, and to which he would direct the attention of his class, while it would enable him to lecture from *samples* of the substances either crude or prepared, as the case might be—immense benefit would, in my opinion, result therefrom.

"I cannot, myself, see any good reason why it is not as important that a medical student should before graduating become as familiar with the physical appearance, composition, peculiar qualities and strength of each and every remedial agent, he must, of necessity, be called upon to prescribe, as it is for him to acquire that intimate knowledge of everything pertaining to osteology and myology, which is very properly deemed indispensable."

A Practical Treatise on the Diseases of Children. By J. Forsyth Meigs, M. D., *Lecturer on the Diseases of Children in the Philadelphia Medical Association; Fellow of the College of Physicians of Philadelphia. Philada. Lindsay and Blakiston*, 1848.

This is one of a series of works, the aggregate of which, when complete, will constitute the "Medical Practitioners' and Students' Library;" and it is worthy of notice here, as a valuable addition to the medical literature of our country, that ought to be in the library of every physician. Dr. Meigs has aimed, with much care, to embody in his work the opinions of the most eminent men, both at home and abroad, "always, however, endeavoring to judge what came under his notice by the knowledge derived from his personal experience in private practice."* He has given to the profession a careful classification of the diseases of childhood, accompanied with the most approved methods of treatment.

In saying this much, we have said all that is necessary, to favor the work. The neatness of its typographical execution reflects much credit upon the enterprising publishers.

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* Preface.

NEW JERSEY MEDICAL REPORTER.

EDITORIAL.

BURLINGTON, TENTH MONTH, (OCTOBER,) 1849.

OUR THIRD VOLUME.

Two entire years have now elapsed since the enterprise of establishing a Medical Journal for New Jersey was projected; and though they have been distinguished by a full share of trial and embarrassment in conducting the work, the apathy of our medical friends in lending us aid, has not been sufficient to deter us from commencing our third volume; and having commenced, we are bound to carry out the arrangements, and to perform the labor, necessary to complete it. With New York and Philadelphia on either side of us,—the two great cities of the Union,—and the two great emporiums of medical science, and medical literature, our chance of success appeared to be small; but our reliance has been, and still is, on the fraternal relations which the members of the profession in New Jersey hold to each other, and the desire which they have shown in all the past —and which they still manifest—to sustain our noble calling in its purity, and to foster and strengthen among ourselves, the bond of continual brotherhood. Nowhere in this country, have physicians been more united, and for a longer time, than in New Jersey, and nowhere is the profession more free from the *sin* of charlatanism. Maintaining these relations to each other, and standing in an organized capacity before the people, bound to exhibit them, it seemed proper and right that we should sustain a journal that might be the means of making the experience of each other the common property of all, and of distributing the proceedings of our society, not only to all sections of our own State, but, through the medium of other journals, to different parts of

our common country. Scarcely a number of the Reporter has gone out that has not taken with it the contributions of our own physicians, which have found place in other medical periodicals, and have contributed their share toward the improvement and advancement of medical science. We would have been glad had the editorial labor fallen into abler hands, but as no one came forward to assume the task, we were not willing to shrink from it, and have endeavored, in the midst of a laborious practice, to do our duty, to subscribers, to our friends, and to the profession. If we have failed, it has not been for want of effort. If we have not failed, and the Reporter has proved itself worthy of support, we ask our friends to contribute more freely to its pages, and aid us in the extension of its circulation. We have no pecuniary interest in it. We have not asked for, or received a single cent for the editorial services that we have rendered, but we hope that the publisher, who relies for his compensation, entirely upon the promptness of the subscribers in remitting the amount of subscription, may not have cause to complain of the backwardness of any.

A CARD.

ADULTERATED DRUGS AND MEDICINES.

Among the many good things that have already resulted from the American Medical Association, the action of that body, with reference to the arrest and detention of spurious drugs and medicines in the several ports of entry into the United States, holds a conspicuous place; and the hearty response with which the House of Representatives met the memorial of the Association, and sought measures to effect the object contemplated by the memorialists, is indicative of a determination on the part of our national authorities to carry out the wishes of the Association, which should forever be regarded as an act of wisdom in the regulation of our government, that will always shed a lustre on the annals

of her political history. But the effect of the bill, prohibiting the importation of spurious drugs, &c., although sensibly felt at the present time, is not sufficiently so, to warrant an estimate of the great benefit that is yet to be conferred upon society by its passage: and with a view to its more perfect administration, a resolution was adopted at the last meeting of the American Medical Association, ordering that a Committee of two persons from each State and Territory should be appointed, "whose duty it shall be to note all the facts that come to their knowledge with regard to the adulteration, and sophistication of drugs, medicines, chemicals, &c., and to report them through the Chairman at the next annual meeting." In compliance with this resolution, a committee has been appointed by the Chairman of the Association, for New Jersey, consisting of Drs. Lyndon A. Smith, of Newark and Joseph Parrish, of Burlington, who hereby call upon the physicians of New Jersey, in the name of the Association, to aid them in the object committed to their charge.—All communications giving information on the subject, addressed to either member of the committee, will be carefully registered, and the facts therein contained, embodied in their report. The importance of this subject, to the success of medical skill, and to the well being of the community, need not be commented upon. While it may be supposed that we in New Jersey have but few opportunities of detecting the adulterations and impositions of the wholesale dealer, country practitioners and apothecaries who procure their supplies from the large cities, do possess the means of eliciting much of the information that is sought by the Committee, and it is hoped that they will take an active part in these investigations, and consider themselves bound to furnish the Committee with such facts as may be developed by diligent research. Without their aid the Committee can do nothing.

LYNDON A. SMITH, Newark,
JOSEPH PARRISH, Burlington, } *Committee.*

OBITUARY RECORD.

Died, in Cincinnati, June, 22d, Wm. A. Dougherty, M. D. Dr. Dougherty was a graduate of the Medical College of Ohio, session of 1847–8.—In Cincinnati, July 16th, of Cholera, Wm. Mulford, M. D., aged 48.—In Cincinnati, July 22d, of Cholera, A. J. Baker, M. D., aged 32.—In Cincinnati, July 23d, of Cholera, William O'Donnell, M. D.—At Southampton, England, John Shadwell, M. D., lord of the Manor of Horsfield, in his 90th year.—Daniel Arnoldi, M. D., President of the College of Physicians and Surgeons of Lower Canada.—At Beauharnois, Canada, Robert Carriere, M. D., of Cholera.—At Fairfield, N. Y., Dr. Green, of Cholera.—At Sylvania, near Toledo, Ohio, Dr. Horace Green, an estimable physician, of Cholera.—At Philadelphia, Dr. Thomas Fitch, 75.—At Manchester, N. H., Dr. Thomas Brown, of Cholera.—In New York, Dr. Alexis Smith, of Cholera, 49.—At Beverly, N. J., Dr. J. B. Warriner, of Cholera.—In Parras, Mexico, Dr. James O'Riley, of New Haven, Conn., of Cholera.—At Washington, D. C., Nicholas W. Worthington, M. D., 60.—Dr. John Gregory, of Drayton, Geo., by suicide—eating opium, 50.—On board the steamer Sarah Sands, four days out at sea, Dr. Fisher of N. Y., formerly owner and editor of the Albion newspaper.—At Queechy Village, Vermont, Theodore Dexter, M. D., of Boston, 58. He was on a tour for the restoration of his health.—At Salisbury, N. H., Dr. John Butterfield, Professor of the Practice of Medicine in the Starling Medical College, Columbus, Ohio, and editor of the Ohio Medical and Surgical Journal.—At Burnt Corn, Alabama, Dr. George A. Wattle, by suicide, a native of N. Y.—At Taunton, Mass., Dr. Alfred Williams, 87.—At South Britain, N. Y., Dr. Joseph Winterbottom, Physician of the Nursery Hospital, Randall's Island, 30.—At Jacksonville, Geo., Dr. T. F. Moore—shot in an affray, by Dr. Humphrey.—At Vernon, Conn., D. Scottoway Hinckley, 78.—In New York, Dr. J. H. Houston, Reporter of the U. S. Senate, formerly editor of the New York Lancet.—At Venice, Dr. W. A. Sparks, U. S. Consul.—At Little Compton, R. I., Horatio Palmer, M. D., 34.—In Paris, of Cholera, Mr. Bougery, well known for his researches on anatomy, and as the author of one of the most magnificent works on anatomy and surgery ever published.—At St. Andrews' Fifeshire, on the 30th of July, John Reid, M. D., Professor of Anatomy and Me-

dicine in the University of St. Andrew's.—In England, Mr. Clift, F. R. S. Mr. Clift has been long and deservedly well known, both in this country and in England, as the Conservator of the Hunterian Museum of the College of Surgeons, London; a situation which he has held for nearly half a century.—At Cincinnati, Ohio, September 1st, Professor John P. Harrison, of Cholera. At Utica, N. Y., Dr. Amariah Brigham, Superintendent of N. Y. Lunatic Asylum.

MEDICAL APPOINTMENTS AND EDITORIAL CHANGES.

Professor Bartlett has been appointed to, and accepted, the chair of medicine in the Louisville Medical school, vacated by the resignation of Prof. Drake. Prof. Drake, it is understood, will become a member of the Faculty of the Ohio medical school, Cincinnati.

Dr. Hunt, of New Orleans, has been elected to fill the vacancy in the medical department of the University of Louisiana, occasioned by the death of Dr. Harrison. Dr. Benjamin Silliman, jr., has been appointed to the chair of chemistry in the University of Louisville, and Prof. Yandell, formerly the incumbent of that chair, transferred to the chair of Physiology and Pathological Anatomy.

Dr. H. J. Bigelow, of Boston, has been elected to the chair of clinical surgery in the Medical Department of Harvard University; Prof. Geo. Hayward having resigned. Dr. Bigelow is a son of Dr. Jacob Bigelow, Professor of materia medica in the same school.

Dr. F. Campbell Stewart, of the city of New York, has been appointed Physician of the Marine Hospital, N. Y.

Dr. Thomas Spencer, late Professor of the Institutes and Practice of Medicine in Geneva Medical College, has been elected to the chair of Practice in the Rush Medical College, Chicago, Illinois, and has accepted the situation.—*Buffalo Medical Journal.*

The New York Annalist has been discontinued, and its subscription list transferred to the New York Journal of Medicine. The late editor, Dr. N. S. Davis, has been appointed Professor of Physiology and Pathology in Rush Medical College, Chicago.

Two additional chairs have been created in the Medical College of Ohio, viz., Physiology and General Pathology, by

Dr. L. M. Lawson, and Surgical Anatomy and Clinical Surgery, by Dr. I. T. Shotwell. Dr. Daniel Drake now occupies the chair of Special Pathology and Practice of Medicine, and Dr. G. Y. Bayless, that of Descriptive Anatomy.

In the University of Louisville, Prof. Short has resigned the chair of Materia Medica, and Dr. Lewis Rogers appointed in his stead.

Dr. A. H. Baker, of Cincinnati, has been appointed Professor of Surgery in Indiana Central Medical College.

In Transylvania University, Prof. Annan, has been transferred to the chair of Theory and Practice, and Prof. Wm. M. Boling, of Montgomery, Ala., appointed to that of Obstetrics, vacated by Prof. Annan.

The New Orleans Medical and Surgical Journal comes to us in a new dress, and with the gratifying announcement, that the sixth volume is commenced under more encouraging auspices than at any time since the work was commenced. We heartily congratulate our friends on their flattering prospects.—*Medical Examiner.*

MEDICAL DEPARTMENT, U. S. NAVY.

The following gentlemen having passed a satisfactory examination at the recent meeting of the Board of Examiners in New York, have been appointed Assistant Surgeons in the Medical Department of the U. S. Army.

Wm. H. Ballard, of Louisiana; George K. Wood, of New York. Report in person at Jefferson Barracks.

Joseph P. Brown, of Michigan. Report in person at Fort Mackinac.

Alexander B. Hasson, of Maryland. Report in person at Fort Leavenworth.

Jonathan Letherman, of Pennsylvania. Report in person at Fort Monroe.

William A. Hammond, of Pennsylvania. Report in person at Carlisle Barracks, for duty with troops under orders to Santa Fe.

Francis Sorrell, of Georgia. Report in person at Fort Johnson, N. C.

Edward W. Johns, of Maryland. Report in person at Fort Columbus.

Wm. W. Anderson, of South Carolina. Report in person at Fort McHenry.—*Medical Examiner.*

ECLECTIC DEPARTMENT.

An Account of a Malignant Epidemic, **(Congestive Typhus,)** ***which prevailed in the early part of*** **1849,** ***at and in the vicinity of Mecklenburg.*** **By Nelson Nivison, M. D.**

I propose, in this article, to give a short account of a malignant epidemic with which we have recently been visited. In doing this, I do not propose to give a description of a new disease; I believe it has been frequently recognized, and sufficiently described by many of our best American writers. Yet it is sometimes interesting to the profession to know to what extent, the time, and in what particular locality a malignant disease with which we are already acquainted, prevails; especially in view of the fact, that notwithstanding all that has been said and written upon this type of disease, there yet remains, owing to its having generally been confined to particular localities, a very considerable number of practitioners, who, if not entirely ignorant of its existence, possess but a very limited knowledge of its essential nature, its characteristic phenomena, and as a matter of course, of its appropriate remedial management. I confess that, although I had read copious extracts from Dr. Minor's Essay on "Typhus Synchopalis," "Spotted Fever," &c., and much of what has been said of "Cold Plague," "Typhoid Pneumonia," "Head Pleurisy," "Pernicious," "Congestive" or "Malignant Remittents," "Congestive Typhus" or "Typhoid Fever," and especially Dr. Dickson's account of an epidemic that prevailed in 1806, in Medfield in Massachusetts, whence it spread gradually, extending itself winter after winter throughout New-England, into Canada and the middle states, progressing from village to village, and from one portion of the country to another, till, in 1813, it reached Philadelphia." I could form no adequate idea of the rapidity and certainty with which it sometimes destroys its victims, if not speedily arrested by the appropriate treatment.

The disease in question commenced its ravages about the middle of February last, some ten or twelve miles north of this place, in the adjoining county of Seneca, and in a very few days from the same time, a number of cases occurred in this vicinity, and especially some five or six miles south of us, and within a week of its commencement, it had visited all the intermediate neighborhoods. It was confined within the limits of a section of country some fifteen or twenty miles long in a north and south direction, and from four to six miles wide. This region of country presents nothing remarkable in its topography. It is situated principally in the county of Tompkins in the midst of one of the finest agricultural districts in central New-York, about midway between the heads of the Seneca and Cayuga Lakes. It is neither level or very uneven. If celebrated for any thing, it is for the richness and fertility of the soil and the general salubrity of its climate. The principal diseases which have prevailed within the last year, have been measles, whooping-cough, and general catarrhal affections, and during a portion of the year we had dysentery, bilious remittent, and in one or two localities, intermittent fever. I would likewise mention in this connexion, that during the month of March of the last year, there occurred in the immediate vicinity of this village, a limited number of cases of a disease resembling, in almost all respects, the one I am about to notice. In this instance, however, it seems to be strictly endemic, extending but a few miles from this place in any direction. The mortality that attended this limited number of cases was perhaps relatively greater than during its recent visitation. This may be owing in some measure, to the fact that physicians were less familiar with its phenomena, and consequently with its proper management. But I think it was mainly due to the fact of its having prevailed but a short time, attacking a limited number of persons, and those few in a fearfully malignant form. Whereas, in the latter case, it continued to prevail to a greater or less extent for about three months. During the first month it was sufficiently malignant, but in the two latter, it attacked a much larger number of persons, and generally in a much milder form; during the last month of its prevalence it gradually became blended with other diseases, to which it imparted more or less of its peculiar characteristics, and finally disappeared altogether, so that towards the close, fatal cases rarely, if ever, occurred.

The disease commenced during the extreme cold weather of February, the mercury being from 12 to 20 degrees below zero. The persons most usually attacked were those in middle life and children, although no age seemed to be entirely exempt. It oftener attacked males than females. It would appear that a previous state of debility or indisposition had much to do in predisposing the system to an attack of this disease, and we think we are safe in assuming generally, whatever the essential cause of the disease may be, where it exists in a sufficiently active state to produce the disease at all, the *exciting causes* are those that tend temporarily to debilitate the vital organs, and thus cause them to perform their functions imperfectly. Hence the fatigue that results from over-exertion, was often followed by an attack of the disease. Mental anxiety was another exciting cause. But it is believed that no single cause contributed so much to excite the disease in persons predisposed as the protracted influence of *cold*. Persons who were necessarily much exposed, and especially those in the lower walks of life, who had not the means of affording themselves adequate protection from the severity of the season, were most frequently found among its victims.

Another evidence that the influence of cold had much to do in the production of this disease, was the fact that during the whole time of its prevalence, simultaneously with, or immediately following, a change from a higher to a lower temperature, was the occurrence of a considerable number of new cases.

The precise mode of invasion differed exceedingly in different cases, the attack not unfrequently came on without any premonitory symptoms whatever; usually however, it gave indications of its approach by symptoms, in many respects resembling those that precede the ushering in of an attack of an ordinary remittent, superadded to which, there was generally a feeling of extreme anxiety, oppressed respiration, of great and often alarming prostration, giddiness, extreme dulness of the intellect, not unfrequently the first indication of an attack was a severe *pain* in some part of the body, usually the extremities; sometimes it was confined to a single joint of a finger or toe. Soon the surface became cold, the extremities livid, the blood often left the superficial vessels of the face, giving the countenance a sort of *doughy* paleness. In some cases, numerous petechial spots made their appearance upon the face, neck and surface of the

body. The conjunctiva was usually highly injected; more or less pain was always complained of in the head, usually in the supraorbital regions; this was often very severe, and accompanied, as it often was, with great intolerance of light and sound, and delirium, which was frequently wild and furious. It was often exceedingly difficult for the inexperienced practitioner to persuade himself that he had not met with a case of genuine phrenitis. Let him beware, however, of an error of this kind, for it would most assuredly be a fatal one. Violent clonic spasms were a frequent accompaniment of this pain in the head; often, however, the patient was comatose, and the symptoms approximated somewhat to those of apoplexy.

The pulse was variable, but always weak, usually quite frequent, but sometimes remarkably slow, not being over forty in a minute. An intermitting pulse was often observed.

The tongue at the commencement was frequently considerably swollen; usually it was covered with a thin white fur, which became thicker and darker as the disease advanced; sometimes the tongue was clean and of a bright red color. Fainting, nausea, with occasional vomiting, was present; the ejections from the stomach being generally mixed with bile.

From a careful attention to the order of development of the symptoms, it would appear that the brain and nervous system were generally the first to suffer, and that the disturbance of the circulating and respiratory systems, were measurably the *results* of this nervous derangement. Often, however, the functions of all the vital organs were so nearly simultaneously affected, that it was difficult, if not quite impossible, to determine which was first in the order of sequence. Nor was it very material, for in the severe cases, the "congestive" symptoms increased in intensity, from hour to hour, with such rapidity, that unless the morbid train of symptoms was speedily arrested by the appropriate remedial management, a fatal coma, with entire insensibility, loss of circulation and respiration, speedily came on, and death closed the scene, in from six to twelve hours from the commencement of the attack. These extreme cases, however, were rare. In a great majority of cases the symptoms were more slowly developed, and in those cases a fatal termination in the early stages was by no means frequent. Usually, after the first shock given to the system had subsided, and

reaction was established, a low grade of fever, characterized by more or less distinctly marked remissions, would follow for several days. This fever was always of a decidedly *typhoid* character. Active antiphlogistics were in no case tolerated. Sometimes prolonged and extremely exhausting cold sweats attended this stage of the disease. These were often extremely troublesome during sleep. If the patient was allowed to sleep a few minutes too long, the sweating was profuse, he was aroused with great difficulty, and awoke with a feeling of extreme exhaustion.

In some cases there appeared to be no *febrile* reaction whatever; it was only by the aid of the most active stimulation, that the vital organs could be induced to perform their functions at all, and often then in the most sluggish manner. Some cases were noticed, laboring under a severe form of this disease, in which the nerves of general sensibility were nearly paralyzed; for although the patients were hourly in danger of losing their lives, no pain or uneasiness was complained of; the pulse could not be raised above forty or forty-five, the respirations twelve to fourteen per minute.

It may seem almost incredible, what enormously large doses of the most actively stimulating articles could be borne with impunity; from 20 to 30 grains of the sulphate of quinine, with proportionately large doses of camphor, carbonate of ammonia, alcoholic stimulants, etc., were often given in the course of twenty-four hours. One patient, that ultimately recovered, was kept in this active course of stimulation for many days in succession, often taking a pint of brandy in from four to six hours without any inconvenience. These doses were not only tolerated, but imperiously demanded. With all this, the surface was uniformly cool, often *cold*, never warm, unless warmed by artificial heat. On several occasions in the patient above alluded to, stimulants taken into the stomach and applied to the surface, seemed to have exhausted all power; the mucous surface of the stomach seemed to have lost its sensibility, and was no longer capable of absorbing or acting upon its contents; the most active stimulants produced no effect. The pulse rose rapidly from 45 to 130, then became intermittent, and finally almost imperceptible, the surface entirely cold. All that remained of respiration, was an occasional hurried, convulsive gasping or sighing. It really seemed that the patient must succumb. In this emergency, an enema composed of six ounces of

brandy, with a strong infusion of capsicum, was given. This was successful in rousing to action the small amount of vital force that yet remained. Under its influence the stomach was again excited to action; its contents were thrown off by vomiting, which, by its revulsive effect, gave a new impetus to the nervous and circulating systems, under the influence of which the former sluggish action was restored, and things went on as before. A similar state of things occurred several times in the course of a protracted illness, during the whole period of which no local organic disease could be detected, and no febrile action established, the disease seeming to be throughout its entire course of a purely adynamic character. This case, though no *fever* was present, was yet characterized by very distinct *remissions*. These remissions occurred in the morning, followed by exacerbations (not of fever,) but of *prostration and debility*, which followed the course of an ordinary exacerbation of fever; in that it commenced towards noon, increased till evening, was greatest near midnight, and declined towards morning.

The *prognosis* in this disease depends mainly on the treatment. The prompt application of the proper remedial measures, was generally successful in arresting the disease and restoring the patient to health in from two to twelve days. Indeed, in most cases, even those of the gravest character, if a proper course of treatment be early *resorted to, and energetically and perseveringly applied*, little danger of a fatal termination need be apprehended, so long as the disease remains uncomplicated.

But it must be obvious to the pathologist, that so severe a shock as is given to the system during the cold, or congestive stage of the disease, cannot often be borne with entire impunity, and that the result must be a greater or less degree of organic mischief, and accordingly, we find cases protracted to an undue length by the occurrence of various *secondary* affections. The particular organ or organs thus secondarily affected, depends, of course, on the predisposition of the system, the weaker parts, making the least resistance, are soonest overpowered. A temporary suspension of functions, followed by a greater or less degree of inflammatory action, of a decidedly asthenic character, is the consequence. Thus, if the lungs be the weaker organ, we may have pneumonia; if the bowels, enteritis, etc. Some writers, apparently overlooking the primary affection altoge-

ther, have given various names to this peculiar form of disease, which have reference only to some of these complications. Hence we have "typhoid pneumonia," "head pleurisy," and a host of other names of a kindred character. Even so slight a circumstance as the occasional appearance of petechial spots has been obliged to contribute to the nomenclature. Hence "spotted fever," notwithstanding the fact that five-sixths of all the cases have no "spots" at all. Any names of this kind, being derived from some fortuitous circumstance by no means essential to the disease, are decidedly objectional, and calculated to mislead; although it cannot be denied that these secondary affections, occurring in the debilitated and adynamic condition of the system peculiar to this disease, are often more troublesome than the original disease itself, and frequently call in requisition the most accurate discrimination, the most valuable resources, combined with that peculiar aptitude in their application which so readily distinguishes the truly scientific physician from the boasting quack or the mere routine practitioner.

One peculiarity of this disease was the great tendency to *relapses*. Often after the patient was apparently out of all danger, from some slight cause, severe, and in some instances, fatal relapses occurred. One of the most fruitful of these causes was a change from a higher to a lower temperature. Several of these relapses would sometimes occur in the same patient. Fortunately, however, they were generally less severe than in the first attack.

This disease, like other epidemics, impressed more or less of its peculiar characteristics upon other diseases that were prevailing at the time of its occurrence, a decidedly *typhoid* tendency being present in almost all cases, and a corresponding modification in their treatment became necessary; even purely inflammatory diseases required a much less energetic antiphlogistic treatment than usual.

A singular case of its *alternative* with parotitis, which was prevailing at the time, came under the observation of the writer. The material points of which were as follows:

M. H., æt. 20, occupation a painter, was attacked with the prevailing epidemic, Feb. 20th.; had been from home the day before; while absent, was taken with pain and swelling in the region of the parotids, and from the fact that mumps were prevailing in the family at the time, no doubt was entertained as to the nature of the local symptoms. When I visited him the next day, the region of both paro-

tids was much swollen. Early in the morning, symptoms of a violent attack of the prevailing epidemic set in; the family, however, supposing that mumps was the only difficulty, were not immediately alarmed, and it was some four hours from the commencement of the attack before I saw him. I then found him with cold extremities, pulse scarcely perceptible, had complained of great pain in the head, eyes red, talking incoherently, the trunk and extremities thrown in almost every variety of position by violent spasms, the jaws much of the time spasmodically closed, had not swallowed for three hours; some fluid was introduced into the mouth, and efforts were made to induce him to swallow it; as soon however, as it reached the glottis, the most violent spasms were induced, which lasted for some minutes, several of these attempts were made, and with the same result. Finding all attempts to introduce medicine into the stomach to be ineffectual, the congestive symptoms in the mean time increasing to an alarming extent, I determined for a time to abandon them, and rely upon external means. A large sinapism was applied to the epigastrium, cloths wrung out of hot water applied to the throat, hot bricks, blocks of heated wood, and bottles of hot water, were placed near the patient, stimulating frictions were applied to the spine and extremities, and finally, the symptoms becoming more and more alarming, a current of hot vapor was passed into the bed; the spasms soon subsided, the pulse, which for a time could not be felt at the wrist, was again perceptible at intervals, a tolerably free perspiration came on, and the vapor was discontinued; some stimulants were now swallowed; the patient continued to revive; in two hours would answer questions; complained of violent pain in the head; occasional delirium; would strike his head violently with his fist, tear out his hair, &c. Two grains of opium were now administered, which afforded great relief. *The swelling about the throat subsided rapidly*, and in twenty-four hours from the commencement of the attack it had entirely subsided. Indeed it disappeared so suddenly, that some doubt was entertained whether in reality he had mumps at all. The disease was treated with opium, camphor, quinine, &c., and at the end of the first week had nearly subsided; about this time the swelling *reappeared* in *one* of the parotids, continued about the usual time for mumps, and gradually subsided; about this time, and while the patient was yet in a debilitated condition, upon a sudden change of temperature,

he was seized with a relapse of the original disease, which was quite equal in severity to the first attack; this was treated upon the same general plan as the first, with the like result, subsiding about a week from its commencement; about this time the swelling made its appearance in the parotid of the opposite side, continued for three or four days, and disappeared. From the peculiar manner in which these several swellings disappeared and again re-appeared, throughout an interval of more than three weeks, some doubt was entertained in regard to its real nature; and had it not been for the fact that about the time of the subsidence of the last swelling, it again made its appearance in one of the *testicles*, in the manner peculiar to this disease, doubts might still have remained whether mumps had any thing to do with it.

In regard to the treatment of this disease, we think we are safe in affirming that almost every thing depends upon insuring, at the earliest practicable moment, a *reaction;* this being once effectually secured, in a great majority of cases the after treatment is comparatively easy; whereas, without it, it is believed that many otherwise simple cases would tend speedily to a fatal termination. I would by no means be understood to convey the impression that no danger need be apprehended after this reaction has been once secured. For if it be important in the first place to obtain it, it is equally important to *maintain* the favorable impression throughout the future progress of the disease. In a majority of cases this is not difficult. The well-timed use of the same class of remedies that were found successful in the first instance in bringing on the reaction, was found sufficient to maintain it. This, however, was far from being universally the case. In many cases of the graver forms of the disease, a complete reaction was with difficulty secured at all, and if fortunately once obtained, the tendency to relapse into its former state was so great, that nothing short of the most energetic and assiduous application of the appropriate remedial measures, for a considerable space of time, was sufficient to maintain the equilibrium of the nervous and circulating systems, and prevent the patient from sinking rapidly into a fatal stupor. Often, when all things were moving steadily in the right direction, a delay or neglect of the proper remedies for a few hours, through the indiscretion of incompetent nurses, was sufficient to place the patient entirely out of the reach of remedies.

The particular remedies to be made use of in order to secure this impression, will probably vary somewhat, according to the prejudices, taste or predilections of the practitioner. It would hardly seem necessary, in speaking of the treatment of a disease so purely asthenic in its character, to make mention of blood-letting. Some practitioners, however, disregarding entirely the *ataxia spirituum*, and considering the congestion of the internal organs as the only essential element in the disease, have sought to make the desired impression upon the system by directly diminishing the quantity of circulating fluid, supposing thus to relieve the congested organs, and invite the remaining portions of blood back to the periphery of the body. Perhaps the best commentary upon this is, that almost invariably, where it has been practised, a fatal termination of the case speedily followed; and even in those very rare cases of a mild character, where recovery slowly followed venesection, it is confidently believed *that the recovery would have been much more rapid without it.*

In general, those remedies that stimulated the surface and conveyed external warmth to the body, were found most useful in this stage of the disease. The application of a large mustard plaster to the epigastrium, highly stimulating frictions, bottles of hot water, hot bricks, flannel cloths moistened with hot spirits of turpentine, dry cups applied along the spine; remedies of this kind, especially if encouraged by the free administration of warm diluents, and if necessary warm brandy and water, spirits of camphor, etc., rarely fails in a short time to produce a gentle perspiration, followed by a marked abatement of most of the symptoms. Often the free administration of warm drinks, in this stage, is followed by tolerably free vomiting, the revulsive effects of which aid materially in bringing on reaction. There are in these efforts frequently large quantities of bile ejected from the stomach.

Some practitioners have hence spoken highly of *emetics* in this stage of the disease. In mild cases they are doubtless sometimes useful. But in the severer forms of the disease, especially where there is much prostration, they are of questionable utility.

After the latent energies of the system have been temporarily aroused by the above means, we often find minute doses of calomel, combined with camphor and Dover's powder, are eminently useful, care must be taken, however, that

too free evacuations of the bowels are not produced. Conjointly with these remedies, we must support the energies of the system by the use of quinine, brandy, carbonate of ammonia, serpentaria, etc., as the case requires. It is sometimes truly surprising that such enormously large doses of these medicines can be borne with impunity. The doses should be regulated by the effect rather than the quantity. Ordinary doses often make no impression whatever, and if the practitioner, from over caution, confines himself to moderate doses when the energies of the system are sinking, the patient will certainly fall a victim to his timidity.

In many cases *opium* was found to be an invaluable remedy. It is specially indicated where there is pain in the head, accompanied with delirium, spasm, great restlessness, neuralgic pains, palpitation, great irregularity of the pulses, subsultus, etc. The great cerebral disturbance might seem to contra-indicate the use of opiates; experience, however, has shown that it may not only be given with safety, but that in many cases it is essential to the cure. Like tonics and stimulants in this disease, it often has to be given in large doses, and continued for a considerable length of time, and when it becomes no longer necessary, it should be gradually withdrawn.

The bowels should be moved by the mildest laxatives and laxative enemata; active cathartics are totally inadmissible. Cases that previously were doing well, have sunk rapidly, and died in a few hours after the operation of a moderate cathartic. It will not do, however, to be indifferent to the condition of the bowels. One case was noticed that came near falling a victim to an overloaded state of the alimentary canal. No evacuations had taken place in several days; the extremities were cold, pulse 40 and extremely feeble, great prostration, countenance sunken, abdomen tumid but not tender; a tolerably free evacuation of the bowels brought great relief; the same unpleasant symptoms occurred in this patient every time the bowels were allowed to become obstructed.

If any organic disturbance occurs, attended with local inflammatory symptoms, it must be met by the treatment appropriate to these affections. It is necessary to bear in mind, however, that the condition of the system is decidedly that of adynamic, and if any antiphlogistic remedies become necessary, they must be of the mildest character. Among these secondary affections, perhaps pneumonia and hepatitis

occur most frequently. In these, and various other affections, dry cupping is often of service. Blisters are among our most useful remedies; a large amount of surface should be covered, and kept open as long as the inflammatory symptoms remain.

During the course of the convalescence the utmost care should be exercised to prevent relapses. Every symptom, however insignificant, should be closely watched; any unnecessary exposure of the person should be avoided, especially in cold, damp weather. Cold night-sweats are common during convalescence, thus rendering patients peculiarly liable to take cold from slight causes. These sweats should be controlled by the appropriate remedies. A uniform temperature of the sick chamber, through the night as well as day, is specially important. The diet should be light, but sufficiently nutritious. Too much attention cannot well be paid to these regulations, and they should be persisted in until the health is completely re-established.

A case of a young man occurred, who had so far recovered that he was considered well; he continued so for two weeks. In a cool, damp day he rode some miles from home, went without his dinner, returned and ate a hearty meal, was taken with a violent relapse in the evening, and died in forty-eight hours. It is probable in this case, that the exposure in going from home and returning, had quite as much to do with bringing on the relapse as the error in diet.

I had designed to subjoin the outlines of a few cases illustrating the phenomena and treatment of this disease; but I have already exceeded the bounds that I had prescribed, and I shall therefore omit them.—*N. Y. Journal of Medicine.*

On the Modus operandi of Quinine in Intermittent and Remittent Fevers. By D. Warren Brickell, M. D., of New Orleans.

Messrs. Editors,—In the July number of the "American Journal of the Medical Sciences," we find some very interesting "Notes of Hospital Cases," from the pen of Dr. H. Hartshorne of Philadelphia. Amongst others, he mentions some cases of intermittent and remittent fevers, treated by Dr. Gerhard, and volunteers the following deduction.

"The impression was formed, that of the two elements of fall fever—the febrile condition and the *miasm-cause*—it is

the latter only that is addressed by the remedy in question. It arrests fever by acting as an antidote to the poison which produces it.

"Can such facts, then, point to its use with a similar intention in the exacerbations of other fevers, entirely different in cause, as the typhus and typhoid? Certainly not."

Now, may we be allowed to ask of Dr. H. what this "*miasm-cause*" is? What is its form, consistency, chemical composition? Is it either visible or tangible? Indeed, we should be most happy to have anything connected with its history, anything which is beyond the pale of disputation, anything veritably established. Moreover, such information being furnished us, we would be pleased to know the action of quinine on this "*miasm-cause*" out of the human body, either chemically or otherwise.

In the mean time, however, we will take it for granted that *nothing* is as yet known of the nature of this supposed element, and venture a few humble animadversions on the deductions of the writer.

If, as we assert, we are all in total ignorance of the nature of the element, what right has the writer to imagine its presence in the system during an attack of intermittent or remittent fever? How very difficult is it frequently to detect the presence of, or to remove foreign bodies, *causes* of disease, even where they possess all those physical characteristics which tend to render them evident in every sense of the word! Again, remove the foreign body, a splinter, a nail, &c., or allow nature herself to perform the task; days elapse, during which time the patient appears to be doing well; suddenly, however, tetanus supervenes; the life of the patient is threatened, notwithstanding the removal of the original *cause*. Shall we still suppose the presence of this cause, and resort to the knife, its only antidote; or shall we address our remedies to the symptoms of the patient? Suppose a man is laboring under what is called "coup de soliel;" in this case the cause of the disease, although subtle, is more evident than the "*miasm-cause*;" but do we address our remedies to the sun? Have we any right to suppose the existence of the sun or its causative emissary in the body of the patient?

But let us approach the bed-side of a patient. We find him with hot and dry skin, accelerated pulse, indeed all the symptoms characterising that state ordinarily denominated *fever*. 'Tis a case of remittent fever, and we find him in

the midst of an exacerbation. He tells us he is six days from Wilmington, N. C.; that he was taken sick the day after leaving said port; has had an exacerbation of fever every day during five days. We administer 15 to 30 grains of quinine; in three hours his pulse is very much reduced; his skin is bathed in a free perspiration; no pain; sleeps quietly; we all agree that this change of condition is attributed to the quinine.

Now the question arises, whether the remedy acted on the *cause* of the disease, (of which we are most profoundly ignorant,) or on the man himself. If on the *cause*, we should be highly gratified to be furnished with the data for such a conclusion, together with something explanatory of the change produced in the condition of the man—as the reduction of the pulse, free perspiration, &c. Surely the writer will not contend that the antidotal effect of the quinine on the "*miasm-cause*" within the man, has any agency in effecting this happy change. For our own part, the phenomena consequent on the exhibition of quinine, have always impressed us with the belief that the agent acts on the man himself, and it must be something more powerful than a mere supposition, a theory that can convince us to the contrary. When we apply sinapisms to the cold extremities of a patient laboring under congestive fever, (a so-called *miasmatic* fever,) and a rube-facient effect is produced, thereby in a great degree improving the condition of the man, we can readily conceive of the action of the remedy on the part to which it has been applied but it must be a great stretch of the imagination to think for a moment that the *cause* of the disease has been acted on by the mustard.

But quinine sometimes *fails* to cure fever, or, in Dr. H.'s view of the question, to *antidote* the *cause*. How does the writer account for this? Such cases, too, will often yield very readily to arsenic; sometimes to opium; sometimes to the purgative plan of treatment. We have seen cases of mild remittent fever cured by the application of the cold *douche*. Are all these remedies antidotes to the "*miasm-cause*"? &c.

However, we think the Dr. abandons his own position even before the sound of the enemy's trumpet reaches his ear. In one sentence he says, "It (quinine) arrests fever by acting as an antidote to the poison which produces it." And the second sentence after this, he says, "The writer saw no facts, in any case of its administration, to justify any other

appellation for its effects than those of tonic and nervous stimulant."

"Tonic and nervous stimulant" of what? Not of the "*miasm-cause*;" but of the patient to whom the remedy was administered. He acknowledges this "tonic and nervous stimulant" effect; and yet asserts that it is the "*miasm-cause*," only, which is addressed by the remedy. To us all this seems "confusion worse confounded." Despite the careful "operation of displacement" to which the author has subjected the "*miasm cause*," this imaginary something —or rather, nothing—is found to be (in the ordinary phraseology of the day,) about "as clear as mud."

When the writer has personally tested the efficacy and modus operandi of the "large quantities" of quinine administered by "some southern practitioners," the latter will more willingly listen to his speculations concerning the probable causes of the sedative action on the pulse, whether it is, "cerebral oppression, analogous to narcotism, or the *antidotal* influence above spoken of." He acknowledges that he has never administered the medicine in these "large quantities," and whilst we would most earnestly recommend the practice, we must contend that his present deductions are, to say the least of them, premature.

Whether quinine should be administered in typhus and typhoid fevers "with a similar intention,"—its antidotal influence over the "*miasm-cause*,"—we will not pretend to argue; perhaps the causes of these fevers —typhus and remittent—are totally different. One thing, however, we will venture to say; if the writer will administer 30 or 40 grains of quinine, combined with a grain or two of opium, to cases of typhus and typhoid fevers in the *commencement* of the attack, we think he will find the agent quite as efficient in checking these fevers as it is in checking the so-called *miasmatic* fevers. These results we have repeatedly witnessed, but we have never yet concluded that quinine is an antidote to the *cause* of typhus fever.—*Medical Examiner.*

THE CHOLERA—ITS COURSE AND RAVAGES.

The cholera has now swept over the entire extent of the Mississippi Valley, as an epidemic, and spent its force at nearly all important points. Its deadliest ravages have been at New Orleans, St. Louis, Quincy, Nashville, Lexington, Cincinnati, Sandusky city, Lafayette and Buffalo. Of towns

and cities of considerable size that have been visited by it, it has fallen most lightly on Mobile, Natchez, Vicksburg, Louisville, Wheeling, Detroit, Cleveland, Columbus and Pittsburgh. The small towns in which it has raged worst, are Bellville in Illinois, Lebanon in Tennessee, Paris and Richmond in Kentucky, Aurora, Boston and Napoleon in Indiana, and Eaton, Vandalia and Minster in Ohio. Places that have suffered a good deal, and yet cannot be classed among the worst, are Chicago, Alton and Peoria in Illinois, Memphis and Clarksville in Tennessee, Maysville in Kentucky, Richmond in Indiana, Xenia, Dayton, Springfield and Batavia in Ohio. "The Coast" at Louisiana has also suffered a great deal from first to last, 10 to 25 per cent. of the slaves being carried off by the disease on the principal plantations. Places of considerable size which have either nearly or altogether escaped the visitation of the pestilence, are Jackson in Mississippi, Little Rock in Arkansas, Huntsville, Tuscaloosa and Florence in Alabama, Knoxville in Tennessee, Glasgow, Shelbyville, Frankfort and Georgetown in Kentucky, Cairo and Springfield in Illinois, New Albany, Madison and Indianapolis in Indiana, and Zanesville, Steubenville, Marietta, Chillicothe, Hamilton and Rossville in Ohio.

Here, now, are singular facts, plainly showing the mysterious and capricious character of this dreadful disease. It appears here, there, elsewhere, suddenly, and often giving no warning, without reference to lines of travel, regardless of natural water courses, wholly independent of the direction of prevailing winds, and uncontrolled by the topographical character or geological formation of the district within its general course. Spending itself where it lights first, either gently or ferociously, it disappears, and while neighboring points are standing in awe of its proximity, and daily expecting its desolating presence, it suddenly appears in altogether another region, a hundred or two miles away. And again, two or three weeks, or two or three months afterwards, while those who seemed to have escaped are still warm in the congratulations of each other, and are beginning to talk and write about the superior healthfulness of their towns, the destroyer retraces its steps, strikes at their best and their worst, their strong and their feeble, alike, and carries mourning to every household.

This is the manner in which the cholera has appeared and disappeared in the course of its march over the Mississippi

Valley. For weeks it is at New Orleans, and does not appear at Natchez, or Vicksburg, or Memphis, although the the intercommunication is incessant; for even months it is in that city, and does not appear in Mobile at all, except in the instances of three or four persons who came home with the disease developing in their systems, and die of it. It appears at St. Louis, and scourges that city as no other American city has been scourged; and yet for the space of five months the city of Alton, a few hours' travel above, on the same river, and in daily, we may say, hourly communication, does not feel its presence in a single case.

Then Alton is stricken, and in a fortnight many of her best citizens are borne to the grave, while the vile look on and escape. It leaps to Cincinnati, moving over hundreds of miles of populated country in a direct line, and passing by many towns and cities on the water line of travel, and for two months subjects us to its terrible ravages, carrying off thousands of our people. Yet while this is going on, a populous city but little more than a hundred miles from us, nearly altogether escapes its presence, and many smaller towns, at half that distance, remain wholly exempt from its visitation. Then it leaps sixty miles north to Dayton, a city of 12,000 to 14,000 inhabitants, and eighty miles south to Lexington, a city of 7000 to 8000, and fills their cemeteries with new-made graves, while the intermediate towns, with their populations of 1000 to 5000 each, experience entire immunity. In the rural districts, too, the same capriciousness is shown. In some counties almost every town of from 100 to 300 inhabitants has witnessed the presence and the ravages of the disease, while in adjoining counties even its breath has not been felt.

And now, having moved thus capriciously from one extreme to the other of this great valley, it threatens to return upon its track, and wrap in darkness and desolation the places that till now it has spared. This, indeed, is what it has already to some extent done, in so recently striking Lebanon in Tennessee, and Harronsburg in Kentucky, and Springfield in Ohio, and Birmingham near Pittsburg, and some other places near which it showed itself a month or two ago, and from whose vicinity it had almost entirely disappeared for weeks.—*Cincinnati Gazette.*

STRICTURE OF THE ŒSOPHAGUS.

One of the most extraordinary cases of stricture of the œsophagus, known to us, now exists in a shoe-maker, of Boston, who actually keeps himself alive by the habitual practice of an operation that no surgeon in New England would dare perform in the rough manner pursued by this unfortunate sufferer. He is a small man, rising of 70 years of age. For many years he had extreme difficulty in swallowing food. Deglutition finally became so painful, that he took advice at the Mass. Gen. Hospital, and, according to his own representation, an instrument was introduced down his throat. The relief was not entirely satisfactory; but discovering that the principle was right, since there was evidently a narrowing in the canal, the idea was conceived of practising upon himself. At the extremity of a rattan, perhaps a yard in length, and a quarter of an inch in diameter, he wound on a mass of hemp, which was confined by twine. A rough mass, six inches long on the stick, and an inch thick at the lower extremity, was thus made. Having oiled it, the old man fearlessly forces it down through the œsophagus, fairly into the stomach. This he is obliged to do frequently, otherwise the strictures—for there are two, one just at the top of the sternum, and the other a little above the cardiac orifice—become so closed, that fluids cannot pass at all. Sometimes, after swallowing a draught of water, it is stopped at the lower constriction. To relieve himself, under such a dilemma, he thrusts down a long feather, which produces nausea, and by the sympathy of the gastric apparatus vomition is induced, and the confined fluid, according to his account, forced back. Sometimes food is checked in its descent, at the same point, and ejected by mechanical assistance.

On Tuesday, of last week, after giving us a minute history of his condition, the narrator oiled the monstrous probang, forced it down into the stomach, and brought it back dripping with gastric juice. Not long since, the lower stricture utterly refused to allow the great swab to pass. Recollecting that tobacco was a *relaxer*, while the rattan was protruding above his teeth he calmly lighted a pipe, and by taking only a few whiffs had the satisfaction of relaxing the muscular grip, and down the mass went, passing the rebellious point into the great membranous receptacle below. On one occasion, the probang was coated over with

ground mustard, and thrust through the strictures, on the supposition that they required stimulating!

A more singular case, one more truly formidable in character, and managed in the rude, fearless manner here described, cannot be found, it is believed, in the annals of surgery. Under any plan of treatment but his own, this man of ten millions would have been dead, years ago, a victim to an incurable malady. With the course he is habitually pursuing, life may be protracted till he is unable to repeat the operation, and then he may die of starvation.—*Boston Medical and Surgical Journal.*

Chronic Hiccough of Seven Years Standing, following Whooping Cough, cured by Strychnine. By JOHN G. F. HOLSTON, M. D., etc. of New Concord.

Hiccough, though more generally a symptom in other diseases, sometimes assumes a more independent form and becomes troublesome from its long continuance, and dangerous from the violence of its paroxysms, threatening suffocation. A number of cases are on record of hiccoughing continued for several months—but the following one, on account of its long duration and its obstinate resistance to most energetic treatment, appears to me somewhat unique and worthy of being preserved on the pages of the Medical Reporter.

About eighteen months ago, Margaret M'Nary, aged about twenty-five years—the subject of this article—a tall, slender girl, of fair complexion, brown hair and dark blue eyes, rather handsome, though somewhat emaciated, was brought to my house by her brother, a distance of forty miles. She was weak and exhausted by her journey, but otherwise apparently, in the enjoyment of good health. She gave the following account of her disease:

In the summer of 1841, she had an attack of whooping-cough, which was treated by domestic remedies for about four weeks, when it suddenly, without apparent cause, ceased and left her for about five weeks in the enjoyment of pretty good health. As suddenly, without any premonitory symptom or any exciting cause, physical or psychical that she knows of, she awoke in the middle of the night with the first paroxysm of her present disease. The paroxysm was excessively severe, so that she, as well as her family, whom she had succeeded in arousing, thought her dying. She had several paroxysms that night and for several consecutive

days—when they subsided without seeming to have been influenced by the bleeding, purging, antispasmodics and opiates, that constituted her treatment at that time. The paroxysms from that period continued to recur at irregular intervals; sometimes a few days only would elapse; at other times she would be clear of them for two weeks at a time. She generally had a number, often thirty or forty paroxysms, with very short intervals of rest. Night and day she was equally exposed, and atmospheric vicissitudes and changes of season, seemed not to exercise the slightest influence over the disease; neither could she discover that it was under the control of her diet; and though her appetite became greatly diminished, she relished her meals as usual and had no unnatural cravings. She thought her spells (as she calls them) somewhat more likely to recur, when she had an attack of sick-headache, or toothache, and always had a few moments warning, which she instinctively employed in loosening her clothes and preparing herself for the attack. During the paroxysm, but at no other time, her mind became excited and somewhat confused. A few deep sighs would usher in the seizure, when she usually ejaculated some phrase, such as: "I must die, I can't live." The hiccough commenced and soon became so violent as to make a continuous choaking, strangling noise; the muscles of the chest and abdomen, were in a rapid wave-like motion, till they ceased, apparently worn out by their own violence. As might be expected, she had consulted doctors by the dozen and was subjected to every variety of treatment. Her attendants generally revenging their want of success by declaring she was *hysterical;* and one (certainly not a gentleman) after failing to cure her by a vile mixture of assafœtida and balsam copaiva, told her she had (a new name in medical nomenclature) the *man-sterricks!!* She would have become disgusted with the whole medical profession had not her urgent distress driven her again and again, to seek relief, which she partially got under the kind and skillful treatment of Dr. McFarlan of Washington, Guernsey Co., who succeeded in suspending the paroxysms for a couple of months, by inserting a seaton in the bark of the neck and giving ferruginous preparations internally. Soon, however, she was as bad as ever and then came to me.

The obstinacy and obscurity of the case induced me, before commencing a course of treatment, to make repeated and most careful examinations, but I failed in discovering

any organic lesion, except a number of rotten teeth, caused by a course of mercury to which she had been subjected during the treatment of her disease, and no functional derangement but a very great increase of the salivary secretion, which kept her constantly spitting; menstruation and defecation were performed with exact regularity. I was forced to consider the case, what Tissot and others of the older writers would term a nervous metastasis (I know of no better term) to the phrenic nerve, which its connection with the par vagum render explicable enough.

I commenced treatment by using the metallic tonics; first iron, then zinc, copper, bismuth, to no effect. Arsenic I was deterred from using by the length of time, she probably might require to use it—during this time I also extracted the carious teeth. I next employed narcotics, sometimes alone, sometimes in conjunction with the preceding remedies. Stramonium, hyoscyamus, belladonna, cicuta—all had their turn. All arrested the spitting, suspended the paroxyms, but caused headache and other uneasy sensations, which were only relieved by the hiccough returning with redoubled violence.

I next used quinine in small as well as large doses, to no purpose; then shower bath and electro-magnetism with no result. Being driven to my wits' end, I determined to try to break up the habit, for such it certainly had become, by substitution of action and put her on the use of strychnine.

R. Strychnine, grs. iv.
Water, oz i.
Sulph. acid, M. v.—M. 10 drops every 8 hours.

For two weeks she took this prescription without any sensible effect, but a slight diminution of the spitting, when suddenly, as she was spinning at the big wheel, she was seized with a tetanic spasm; her legs were jerked up; her head bent back; her jaw set, and she fell on the floor almost senseless. Having removed myself to within thirteen miles of her residence, I was sent for in great haste, and on my arrival, found the muscles of the jaw yet rigid and the spine bent backward; pulse strong and full; a little headache and a severe pain in both sides, in the regions of the diaphragm; shudderings with increase of spasms passed over the whole frame every five minutes. I bled her twenty ounces, gave Epsom salts, oz i. with
Laudanum, gtt. x.
The spasm relaxed, she fell asleep, (about 10 o'clock at

night) the next morning her purgative operated and she was in her usual health. This was in December last. I directed the strychnine to be continued in smaller doses and occasionally suspended. She had several slight tetanic seizures afterwards, but the paroxysms of hiccough gradually became weaker and less in number, and for more than four months she has been entirely free from them. She took the strychnine about two months. Her troubles were, however, not ended. As the hiccough lessened, she began to feel a pain in each side, extending from the middle of the neck on each side of the sternum to the edges of the ribs, and thence spread right and left. This pain became so violent that I was again sent for, but not being able to go, a medical friend attended, cupped the sides, applied a blister, and administered pills of calomel, opium and ipecac, without relief. In a few days I saw her again, and directed frictions over the course of the phrenic nerve with croton oil, which brought on extensive pustulation and gave some relief. The pain, however, soon returning, I prescribed frictions with the following: R. Veratrine, grs. iv.
Lard, oz i.
Sulph. acid, M. iv.
and internally prussic acid, fresh prepared by myself after the Dublin formula, 3 drops every 8 hours in water. She got relief with the first rubbing and dose of drops, but consumed about oz i. of the acid and oz ii. of the ointment. She is now free from all suffering, but the saliva is still secreted too freely and she feels some weakness in the region of the diaphragm, but is still improving.—*Western Lancet.*

On Malaria. By SAMUEL HENRY DICKSON, M. D., Professor of Theory and Practice of Medicine in the University of the city of New York.

The etiology of periodical fevers is a topic of permanent and absorbing interest. Few subjects have been so often or so ably discussed; the ingenuity of medical theorists has found no where so wide and fair a field for its exercise. Let us examine, for a moment, the present state of the discussion.

Diseases may be divided into the specific and non-specific; those which require for their production a special cause, an agent of definite and characteristic properties, being designa-

ted by the term specific. Here we would include the contagious affections, febrile and non-febrile, in all which a notable *materies morbi* may be referred to as necessary for the generation or production of the concurrent phenomena. Under the same head we might speak of delirium tremens, rachialgia, and spontaneous gangrene from ergot, and the long list of influences exerted by the several articles of the materia medica: ptyalism from mercury; the sloughing cheek and carious alveoli of the phosphorus match maker; nay, the mechanical phthisis of the knife-grinder and coal-heaver might be placed here, with the long train of less palpably developed results of narcotism by alcohol and tobacco. Beyond these our inquiries must invade the domains of conjecture and speculation.

It is, however, among endemics and local epidemics that we shall find the subjects of the most difficult research, and in this relation, of the highest importance. Why plica polonica belongs only to one region or people, and pellagra exclusively to another; why bucnemia prevails specially in Barbadoes; trismus nascentium in Iceland, and traumatic tetanus in Santa Cruz; why plague and ophthalmia are indigenous to Egypt, and yellow fever to Havana and Carthagena; why goitre and cretinism besets so grievously the Alpine valleys; and why the rich fields of Lombardy and the desolate plains of the Campagna di Roma, are annually ravaged by periodical fevers; these are questions which, perpetually recurring, have hitherto received no satisfactory answer.

To which of these classes of disease, specific or non-specific, does periodical fever belong? This is the first point to be investigated; this is the first step in the debate; and if the correct direction be not followed from the beginning, we must surely be led far astray, in our progress toward a conclusion.

The prevailing opinion that such fevers are of specific nature, and derive their origin from a peculiar morbid agent or poison, is maintained, not without some vagueness, I acknowledge, upon the following grounds: 1. The familiar series of concurrent and successive symptoms, the characteristic phenomena of these fevers, are supposed to be so marked as to demand, *ex necessitate*, a reference to a specific and relevant cause. 2. The second position, implied, indeed, in the first, is the total inadequacy of all obvious contingencies and known modes of causation to account for effects appa-

rently so varying and disconnected with them, yet, under other and indefinable circumstances, so uniform and susceptible of repetition. 3. The *a posteriori* argument drawn from the unequivocal and impressive efficiency of the best, if not the only specific remedy known in our materia medica, (cinchona and its salts.)

1. The periodicity of these fevers, so familiar and yet so strange a fact, or series of facts, has not been, I think, sufficiently considered or studied. It is true, that periodicity is a very frequent element of disease in general; nay, a certain degree of regularity of movement, of alternating or recurrent conditions, may, perhaps, be regarded truly as the rule, and its absence the exception, in the symptomatology of all morbid affections. Neuralgia rarely fails to observe this law with more or less precision; convulsive maladies generally, epilepsy and hysteria more particularly, show its influence; the return of hemorrhages may often be predicted; inflammations, irritations and congestions, all are known to recur at stated times, and even suppuration is occasionally suspended and resumed at exact intervals, as in the tenacious disorder of the frontal sinus and antrum maxillare connected with influenza; organic changes of structure, scrofulous and others, though of course themselves continuous, give rise to hectic of diurnal or double diurnal repetition, and the same periodical disturbance of the constitution often follows wounds and mechanical injuries. It is also true that all the healthy functions, actions, and habits of the system are either governed originally by some law of regular revolution or fall readily into a convenient obedience to it; and upon this normal periodicity seems indeed to be founded most of the phenomena of periodicity belonging to the history of diseases.

But if any are independent of this analogy, proceeding without perceptible relation to it, nay, traversing it freely, we may affirm the fact to be true of what are called malarious fevers. These present a variety of types; they are remittent and intermittent; quotidian, tertian, and quartan, with duplications, reduplications, and interchanges, of great complication, and intricacy, yet always preserving a well-defined course, and easily unravelled if carefully attended to. The quotidian has much analogy with the ordinary movements of the human system, and is hence the type commonly assumed by fevers which attend upon incidental irritations and modes of disturbance, also in all hectics. A good illustration of this influence is given in M. Brachet's account

of the production of an artificial intermittent in himself by plunging into cold water at a fixed hour for several evenings in succession.

The tertian departs abruptly from this analogy. "There is" says Watson, "no known bidual habit in health." Perhaps we may fairly regard as an exception to his remark, the habit of alvine evacuation on alternate days, which seems perfectly natural to some men who enjoy good health. But this is unimportant. In some of the lower classes of animals bidual habits are said to be noted. Knox tell us that in the wild goose, swan, and duck tribes, an egg is laid only on every second day.

We lose all hold upon any normal clue in this labyrinth, when we reflect upon the superposition or accumulation of paroxysms so often observed—the herosthesis of the ancients, the tertiana duplex et duplicata, where each day shall present its access of fever, yet evidently not quotidian, but a tertian repeated, or rather *two tertians;* or one day shall be free from fever, and every other day be burthened with two paroxysms; or as in the triple tertian, not very frequent, but occasionally met with, I suppose, by every extensive practitioner in malarious countries, where two paroxysms mark every alternate day, a single access presenting itself on the less unfortunate days. For such extraordinary phenomena, so far removed from all correspondence with any normal actions of the organism; for such striking and impressive, and novel effects, we must seek some adequate, novel and relevant cause.

The quartan, which rarely in our country commences as the original or primary type of an attack of intermittent, is usually considered as most remote from any familiar or incidental analogies. Its history is, indeed, singular. In thirty years of practice in a malarious region, I have met with but two cases beginning with this type; both in young persons between eighteen and twenty-one, one a male the other a female; both in the better conditions of life, and as little exposed as any residents in such a region could be. In general, the quartan makes its appearance as a degenerate tertian or quotidian. From either of these it is formed in the same mode, that is, by the loss or elision of two paroxysms, upon or after which there commences the new interval or train of progress. The extreme obstinacy of this mode of intermittence, or rather recurrence, is matter of universal notoriety. I saw, in 1817, a case of quartan of 15 years' dura-

tion brought to a close. Some few years since a gentleman placed himself under my care, who had not missed his quartan paroxysm once in 18 months. The books were formerly filled with such instances; now, happily, no longer to shame the profession. The subjects of these tedious quartans are often apparently in very good health in every other respect; stout, robust, corpulent, athletic, with good appetite, sound digestion and ready assimilation, performing with alacrity all the duties of life, and enjoying all its pleasures.

The connection of the remittents of malarious districts with each other and with intermittents is undenied, and I believe undoubted. The analogies of movement presented, vary in different instances; but I believe in general they will be found to refer to the tertian rather than to any other types, the remittent persistence being attributable probably to some organic change in the condition of some one of the viscera; the abdominal contents being chiefly affected, the liver, I doubt not, in the great majority of cases, the spleen almost always, the mucous digestive tissue not unfrequently. Perhaps the same tenacity may be given to the attack, which would otherwise intermit, by congestion, irritation or inflammation of the vascular apparatus, the lungs and their appendages and the cerebro-spinal axis with its membranes. We can often trace throughout the whole history of a case, a correspondence with the periods of the double and even the triple tertian.

Let us take a cursory review of these facts. On a certain number of persons residing at a particular spot, a proportion, in many places a large one relatively to the whole, shall be annually seized with periodical fever. The type will not in all be the same. Some will suffer from a fever continuous in duration, but notably and regularly subject to variations in degree of intensity, and in the concurrent phenomena. Others will be assailed daily by a paroxysm coming on at a fixed hour and subsiding after a certain duration, leaving an interval of freedom from fever for a part of the day. In others this interval will last a whole day and more, only a portion of every alternate day being annoyed with the febrile access; and yet in others, still more fortunate, there will be two days of comparative, nay, sometimes apparently absolute health, to one disturbed with fever. It is agreed to ascribe all these diversified attacks to one identical source, of whatever nature, because the types not only occur together under precisely indentical contingencies, but they are

all convertible and frequently converted: the remittent often subsides into an intermittent, as a stage of convalescence, or in seeming convalescence, takes tenacious hold as an intermittent, the quotidian and tertian degenerate, as the common phrase is, into an obstinate quartan.

The given locality in which all these things happen, is sometimes narrowly limited and well defined; they take place in the genial months of the year; they seem to be relevant rather to season, however, than mere temperature, being frequent in the coolest spring, summer and autumn, and infrequent or exceptional in the warmest winters.

I will not dwell upon the proofs of the identity of cause and nature alleged to be deducible from the organic changes impressed by these several types. Our morbid anatomy of fever is still unsettled. Broussais found the seat of intermittent in the mucous membrane of the digestive tube, Schultz and Maillot in a lesion of the cerebro-spinal axis, and Piorry loudly maintains the exclusive rights of the spleen; while Stewardson calls our attention to a special change of appearance in the liver as uniformly belong to the history of a malarious remittent. For my part, I hold with Fordyce, who pronounces fever to be a disease of the whole system *"in every kind of sense."* It is indeed a turbulent congeries of irritations, congestions and inflammations; it disorders always with congestion, and not unfrequently with consequent inflammation, every abdominal viscus, the spleen uniformly more or less, the liver also at some period of its unarrested progress; and the digestive surface of course, directly or secondarily. Nor can the kidneys escape when the skin is corrugated and its functions suppressed, or heated and dried in every scale; the lung yields somewhat less readily than the spleen to the congestion of the cold stage, but recovers from it with more difficulty, and inflicts more constitutional injury by its morbid condition while its important offices are impeded. As to the cerebro-spinal axis, the splenic plexus—nay, the whole sensorial tissue, ganglionic or cerebral, the cerebellum or the great sympathetic, nothing can be more inevitable than that they all must be involved in the wide spread derangements, vascular, secretory and excretory, derangements of condition and function and composition of solids and fluids, which go to constitute in detail the full history of a febrile paroxysm. Yet I think there would be no great difficulty in showing that the effects or permanent influences of all these types of malarious fever, whether exhi-

bited during their protraction in obstinate modes of ill health, or during the successive stages of convalescence, or in the autopsy of fatal cases, are closely analogous, extremely similar, or absolutely the same; and that they differ from the changes impressed by all other forms of fever known to us, arising from whatever sources.

Now it seems to me logically fair and correct to reason backward here, from effect to cause, and from the peculiar and specific character of the effects to infer a relevant specific and peculiar character in the cause. Incidental influences of familiar nature, acting in access or by unadaptedness, produce impressions cognizable by their resemblance to those which they normally excite, the difference being in degree alone. But here, new movements have been originated, rythmical, so to speak, and tenaciously preserving a regularity which corresponds with nothing belonging to the healthy processes of the system: there is besides, something in the mode of causation of each case, which decides the train of movements in that case, making the periodical revolution diurnal, bidual, or tridual; bringing on a chill in one every day in the morning, in another a similar chill at noon every second day, and still another in the afternoon of every third day. In one the head shall be prominently affected, in a second there shall be vomiting and tormina, and in a third the spleen, or liver, or kidney, or spine, shall be the seat of painful engorgement or inflammation. A fourth shall have no repetition of the chill which usually ushers in the paroxysms, but be regularly re-attacked at precise intervals with fever, commencing with the hot stage, or shall enjoy no absolute intervals, but suffer from a continuous hot stage, varying in degree of intensity, and in its undulations of violence exactly corresponding with the movements of some one of the types which intermit. This endless variety of identical or closely analogous impressions, preserved so often with an almost indescribable exactness through the whole duration of certain cases; in others, again, palpably intermingled, as though one attack of fever were removed or one superadded upon that or those previously existing—all this I say, irresistibly leads me to the belief of a specific cause, a poison acting peculiarly and characteristically upon the organism in its own exclusive mode.

This belief is strengthened by reflection upon another of the most notable circumstances in the history of malarious fevers. There is, as is well settled, a fixed period of time

between the efficient exposure to the cause, whatever it may be, and the first access of definite disease. Sometimes the health of the subject is entirely undisturbed during all this time; occasionally there is gradual deterioration and progressively increasing ailment. Rarely, this imperfect derangement is persistent or protracted indefinitely, and seems to wear away or subside gradually, unless some exciting cause shall disturb the system and arouse the latent disease. But all incidental morbid causes act upon the system directly when applied; they may require it is true, some continuance of application, some accumulation of impulse or impetus to overcome the elastic resistance offered by the vital forces, but when this acme is reached, they produce their results without delay or interval. Specific causes, on the other hand, all need time for the gradual maturation or development of their influences. It is probable that by increase of amount administered, or by intensity of concentration, they may be made instantly efficient; but this is the exception, not the rule. We read of malarious fevers ensuing at once upon exposure, but in this country we see none such. A *latent period*, very distinctly marked when the exposure has been transient, and I believe, always relevant to and corresponding with the *intercurrent period* of the type to be assumed, passes away before the access of fever. In our southern lowlands, this latest period is seldom less than one week, or greater than three in duration, but the books give us many histories of being indefinitely lengthened, as in the unfortunate Walcheren expedition.

In this part of its history, malarious fever certainly resembles the specific contagions, which require a definite time for the development of their influences. Let it be observed too, and this is another point of similar analogy, that a continued application of the same agency—as by residence in the locality supposed to be of morbid force—does not increase the violence of the impulse or effect, any more than continued exposure to the contagion of small-pox or measles, or the introduction of a larger quantity of virus by inoculation will increase the force of their attack. It is equally violent, if after efficient exposure we remove the subject far away; nay, it is a common opinion in the South, and one founded upon long experience and large observation of facts, that an attack which follows removal from the malarious atmosphere during the latent period, is apt to be decidedly more violent and dangerous than if the subject had remained where he received the "seeds of the disease."

2. It may now seem unnecessary to press the argument of the inadequacy of incidental causes to originate the marked phenomena of which I have been speaking, but let us consider it for a moment. If we observe the patient beginning to succumb to the febrific influences at noon of the hottest day of summer, in a hot climate, we shall find him shivering, with his skin shrunk, corrugated and chilly, while he complains of the sensation of profound cold, the thermometer standing at 80° of Fahr. or above it. The most ingenious and able opponent of the hypothesis of the existence of a febrific poison, known or unknown, such as we for convenience sake designate malaria, Dr. J. Bell, of Philadelphia, regards the familiar variations in the notable conditions of the atmosphere, alternations of temperature more especially, as the efficient causes of the so-called malarious fevers. But in the low country of the Southern United States, where these fevers abound, we meet with them in masses during the warm months of the year, from May inclusive, annually. In most seasons the heat is then protracted and steady, presenting in many of the most sickly localities little variation in the course of the 24 hours. The coolest portion of the whole, (the few hours between midnight and sunrise,) is spent in bed, in a more or less sheltered condition; and few expose themselves until the temperature of the air is raised by the presence of the sun, and that of the body by food. For weeks together the heat of the body is not subjected to a variation sufficient to produce a sensation of coolness, except in those who sleep in the open air or those who bathe in cold water. But these are not known to be more frequently attacked by fever than others; nay, the cold bath is by many considered prophylactic, and the black, who often sleeps out of his house, is less liable to be assailed than his protected master. Again: the month of June, presenting a high average temperature, is remarkable for its impressive alternations. Here we are apt to find the hottest day of the year; here, also, we have some cool weather with annual certainty. The "sheep storm," "the cold week," are familiarly spoken of, as to be usually expected; a change attributed by one of the most observant meteorologists, I know not how correctly, to a temporary extension of the range of trade winds along our coast. During this very week, (June, 1849,) the thermometer has ranged from 54° to 96°, and one from 70° to 92°. Yet June is one of the healthiest months of the year; indeed, the bills of mortality in our Atlantic cities will probably show fewer deaths in June and July than

in any other two successive months. Certainly it is not marked by any special prevalence of periodical or malarious fevers, nor is their number increased during the cold spells to which I have referred.

Farther: it is a matter of notoriety, that in the malarious neighborhood of the city of Charleston, S. C., our most salubrious winds in summer and autumn are those from the east, because, as is supposed, they bring us a pure air from the ocean. They are moist and chilly, however, and excite catarrhs, and rheumatism, and croups, in children and invalids, but they lessen the frequency of our climatic and periodical fevers. These two sets of diseases seem to be placed in a sort of positive contrast to each other instead of being allied, as maintained by Dr. Bell, who says, that "in the winter, a man who gets cold contracts angina—in spring, pleurisy—in summer, cholera-morbus or bilious colic, remittent or congestive fever—in the fall, intermittent"; and that "periodical fevers are most frequent and violent in climates, and localities and seasons marked by the greatest contrasts and alternations in the sensible states of the atmosphere." He adds, also, "worse by far than inspiring marshy air in autumn will be sleeping one night between damp sheets."

Let us inquire, then, where the greatest contrasts and alternations in the sensible states of the atmosphere are found in our own country, and the relation of malarious fevers to these changes. Along the low lands of our southern coast, from the Rio Grande to the Housatonic, these maladies are of frequent occurrence; unfailing in regularity and terrible in violence as we proceed southwardly. They are not met with on the Merrimack or the Connecticut; they prevail fiercely at the mouth of every river opening into the Gulf of Mexico. Now, taking either the annual or the daily range of the mercury, we shall certainly find the thermometrical changes most impressive north of the Hudson. Of the alternations in barometrical and hygrometric conditions, we are not informed.* Let us, again, compare the valley of the Housa-

*The country around Boston is liable to more and abrupter variations of temperature, whether we compare those of the several seasons of the year, or the diurnal changes in every season, than the neighborhood of Mobile, Augusta or Savannah. It should, therefore, upon the theory I am combatting, be liable in greater degree to malarious fevers, but it is both comparatively and absolutely free from them. I know not that the Island of New-York differs materially in climate from Staten Island; it is said that the nights are cooler on the latter, from the sea breezes. They are al-

tonic, or any other river in New-England, with the low lands on Broad or Tiger, in South Carolina. I will not speak of Cooper or Ashley, or Savannah or Pedee, whose banks are deadly to the white man in autumn. The sensible atmospheric contrasts are quite as great, nay, decidedly more marked, in the former; the winters of the midland southern country are milder, the extreme heat of the summer noon not greater, nay, not so great; the day no warmer, and the nights by no means so refreshingly cool; yet there we find, with less sensible alternations of atmospheric condition, a constant prevalence of periodical fevers, unknown to our northern brethren.

I know no region so perfectly free from these fevers, and indeed from all affections enumerated among the malarious, as the beautiful and healthful plateau which lies in Henderson and Buncombe counties, North Carolina, between the Alleghanies on the western slope, and the French Broad river or Saliko. It this earthly paradise, human health it at its highest point, both during the cold of winter and the heat of summer. The soil is fertile along the banks of the river, and the air and water of unrivalled purity. But the climate presents impressive and rapid alternations. However warm may be the general noon the nights are always cool. Where, then, should periodical fever prevail if not here, supposing it to be produced by these contrasts? Yet if the whole population of that "happy valley" should "sleep in damp sheets in autumn," not one would be attacked by intermittent or remittent fever. Such an attack has never happened to any resident there since the first pioneer settlement was made on the expulsion of the Indians. Yet these fevers show themselves there sometimes, and in their most violent forms too,

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most of the same geological structure and soil, or at any rate there is no strong contrast; but the difference between them of liability to intermittent fevers is very great and familiarly known.

In Farmington, Conn., where I am now writing, (June 23, 1849,) the winters are long and very cold; the summers, though short, are very hot. In the most sheltered parts of the house, the thermometer for the three past days has risen to 90°, 92°, and 92°, Fahr. The daily range is often great; it was yesterday not less than 22 degrees being 70° at 6 A. M., and 92° at 3 P. M. During the week it has varied 42 degrees. Here, then, we have as high heat as in the middle districts of South Carolina, or the western part of the State of New York, and a cold altogether unknown to the former. We have also an impressive difference between the refreshing coolness of night and the noonday heats, which does not exist there; but here malarious fevers are absolutely unknown; there they are annually certain, and extensively endemic if not epidemic.

in persons who travel thither from the low lands of Georgia and the Carolinas on one hand, and of Tennessee and Kentucky on the other. I saw two such there; one was a distinguished statesman and orator, destined, had he lived, to the loftiest elevation, nay, already elevated to an acknowledged equality with the highest. His valuable life was sacrificed by the exposure of, probably, a single night only in a malarious locality, about a fortnight before he was assailed by a malignant remittent. Of the hundreds or thousands who pay a yearly visit to this delightful region, subjecting themselves to the strikingly impressive contrast of the temperature of this elevated mountain country with the steaming plains of the Atlantic coast, or the close valleys of the western rivers, it is very seldom indeed that any one who, on his journey thither, has exerted common prudence in the avoidance of an "unhealthy" locality—a malarious spot, for his night's sojourn, has been assailed there. Residing there several summers, I knew of no more than two of this kind, already mentioned, both of them distinctly referrible to conscious exposure. Contrast this liability from sensible atmospheric alternations with the risk so well understood in our southern country. If any man of the white race should sleep in the dryest sheets, in the most comfortable apartment of any house on any rice plantation, in the most balmy summer or autumn night, in our southern low country, selecting the season of most steady temperature and greatest freedom from other vicissitudes, I would not hesitate to insure him, for a very slight premium, an attack of malarious fever. If he repeat the experiment a few times, his chance of escape would be annihilated. I appeal to my southern brethren whether I have stated the facts at all too strongly; the inferences to be drawn seem to me clear enough, that atmospheric alternations are inadequate to the production of the familiar effects and that certain localities must possess some obscure but most efficient morbid agency.

Lastly. The well-known modes of limitation of malarious diseases, to which I have slightly alluded, are apparently inconsistent with the action of "the obvious and patent, the plain and easily found" atmospheric influences dwelt on by Dr. Bell. For example: the city of Charleston; Savannah; the town of Beaufort; Aiken; the village of Walterborough; Edding's bay, on the sea shore; Sullivan's Island, in the estuary of Ashley and Cooper rivers, and Whitesville, with a thousand other safe summer residences, and "pine land set-

tlements," as they are called, are known to be *absolutely* exempt, or nearly so—*comparatively* so in the highest expressible degree—from the endemical fevers which ravage our whole southern low country. *Sleep* within well-defined precincts at each of the above named points, and you may indulge yourself with impunity in daily rides and walks in every direction around; venture to sleep out of the "charmed circle," and you will be assailed by periodical fever almost as certain as you will be vomited by ipecac., put to sleep by opium, or rendered insensible by ether. I cannot admit that the influences which thus act, or fail to act, are by any means "patent or obvious." Some of the points mentioned as healthy are remarkable for their atmospheric moisture; others for the impressive and agreeable contrast which they present in the refreshing coolness of their nights, after burning days of glare and sunshine. This is strikingly true of Sullivan's Island and Aiken; one of which is noted for a high, dry air, the other for a very damp atmosphere. Let any one compare them with the upper portion of New York island, climatically, and point out, if he can, in what atmospheric condition, thermometrical, barometrical, or hygrometric, consists the difference between them, which renders the latter so much better situated in so many respects, so much more liable, nevertheless, to periodical, malarious, intermittent fevers. Nay, I think it would be difficult upon any "obvious" grounds, and setting aside the hypothesis of a specific poison, to explain the immunity of one end of Manhattan Island and one end of Sullivan's Island, and the alleged liability of the other end of each to this class of diseases. I have not laid any stress here upon the stories told of the liability of one side of a street or road, one side or one room of a house, nay, one side even of a ship, to these fevers, while the opposite side was free; nor upon the immunity of a ship's crew stationed a cable's length from the shore, while those who ventured after night on land were assailed; nor upon the occurrence of ague in the fœtus; all which rests upon very fair authority, and if true, are absolutely unaccountable upon any known or obvious mode of causation. The literature of malaria has been made almost as wonderful as that of mesmerism, and all who are sincerely anxious to arrive at the truth should be particularly careful upon what evidence they admit such facts as the above, some of which are probably true, but ought to be more clearly made out and more strongly confirmed than they yet have been.

3. The third argument for the specific nature of the cause of periodical fevers is drawn from the peculiar efficacy of the great specific cinchona. Like all other diseases, it is true, these present infinite diversities of grade and tenacity. Many cease spontaneously, many are easily arrested by any mode of interference and perturbation, bodily or mental, moral or physical. Fear, hope, joy, disgust, faith, on the one hand, on the other, venesection, the cold and hot baths, emetics, purgatives, bitters, opiates, all cure intermittents. In some districts, whiskey is the great remedy; in others sage, the ancient panacea—"*Cui moriatur homo, cui salvia crescit in hortis*," —is implicitly trusted to. Dogwood, logwood and spider's-web have their undoubting advocates. Remittents, however closely allied in cause and history, have been found much less manageable, and indeed, in some of their varieties, constitute very terrible forms of fever. What is most singular, however, is the fact that some of the worst of these, the most fatal in themselves, are most amenable to one particular remedy, and thus the mortality and obstinacy of the attacks are found to be, if not contrasted, at least not correlative. The true explanation of this apparent paradox seems to be, that ordinary remittents are apt to present certain complications which modify their character so strongly as to remove them from the relevant adaptation of the specific above alluded to—cinchona. Determinations to particular organs, highly irritative, inflammatory and quasi-inflammatory, are mingled with the febrile condition from the onset, which interfere with, control, or prevent the peculiar effects of the great febrifuge. Under these circumstances, in which, for whatever reason, the immediate administration of quinine is not followed with certainty by immediate benefit, as we know no other specific to substitute for it, we lose time of necessity, in efforts which differ among the several classes of practitioners, to remove, or palliate, or counteract these superadded local derangements, to which many attribute the continuousness or pertinacity of the paroxysm, and its tendency to throw off, or exhibit less and less clearly, the character of the periodicity originally belonging to it. If we succeed in these efforts, and procure an intermission or a marked remission, we put an end to the attack, without farther delay, by a dull dose of quinine. Nay, it has become the rule not to wait always for such change, but to experiment with the great remedy even in the most unpromising cases; and this is often done with the most gratifying success.

But no such preliminary management is necessary when the case, however violent, is from the first, of merely congestive character. You need not here delay a moment. Cinchona alone is requisite, it is almost uniformly successful: in bad cases it is the only thing that offers any reasonable hope.—So also in intermittents, pernicious, malignant, congestive, it is almost all-powerful. The first interval is enough; if the first paroxysm is not fatal, your patient will probably recover, provided you are well supplied with quinine and fearless in its exhibition. There is no single point on which the medical profession, in all its divisions and subdivisions, is so fully agreed, as this. The worst cases, if simple and unmingled with complications, will yield to this remedy, and to nothing else. The mildest cases, in which its influence is disturbed or set aside, will prove obstinate, and may be fatal. The former are most purely febrile—we say malarious; and we infer a certain relevancy or definite relation between the causative poison and its antidote or counter-agent.

This relation or relevancy is farther shown, and very impressively too, by the influence of cinchona as a prophylactic. This influence is not exerted through the medium of any notable or observable effect upon the system, but most obscurely. There are other remedies known as prophylactic doubtless: alcohol perhaps, and if so, by its stimulant property: tobacco perhaps, and if so, as a narcotic; opium, perhaps, and in the same manner more efficiently; sulphur, as is alleged, and if so, as a purgative and diaphoretic; turpentine, tar-water, and the like, and if so, by their diuretic action. But small doses of the sulphate of quinine, which, so far as is "patent and obvious," impress the organs and functions in no discernible manner, affecting neither the circulation, secretions, nor excretions, will enable the subject safely to undergo exposures otherwise fatal.

It is curious to remark, too, that cinchona, which thus interrupts the progress of periodical or malarious fever, arrests it when forming, and even prevents its access, fails to act permanently upon the singular predisposition to recurrence which belong to its history. There is no disease so strongly disposed to return as this form of fever; yet no patient relapses while quininized, though many are attacked again as soon as quininism subsides. In other words, the influence of the febrific poison upon the constitution, though less forcible, is more tenacious and persisting than that of the antidote. Fortunately we are in possession of another remedy,

in which these qualities are, so to speak, reversed. The experience of the best European authorities, which coincides with my own, goes to prove that arsenic far more completely obviates the tendency to recurrence of protracted intermittent than quinine, while it is infinitely less efficient and useful in the management of the disease when present.

The facts, then, which, at the risk of some repetition, I have thus brought together, will, I think, if carefully considered, be found abundantly to establish the position that the cause of periodical fever is a specific poison:—

Its influences or modes of development are peculiar and characteristic:

Its phenomena are not explicable by reference to the agency of any known causes:

It is controlled only by the obscure, undefined and unintelligible action of specific remedies.

The next step in our discussion leads us to investigate the nature of this specific poison—to inquire whether it is organic or inorganic; animalcular or of vegetable growth; an effluvium or a gas.

The received hypothesis of the existence of any such agent, whichsoever of the above suppositions we may adopt, is full of difficulty, it must be admitted. The embarrassments which hang about it are dwelt on and well displayed by several recent writers, at the head of whom stands Dr. Bell, of Philadelphia, already frequently spoken of in terms of cordial and well deserved respect. It remains to be seen whether any substituted hypothesis is more explanatory, freer from difficulties, or better entitled to our belief.

The views of Dr. Bell, like those of Prof. Dunglison, are rather negative than positive; they express dissatisfaction with the current opinions, whether, as laid down by Lancisi, or Macculloch, or Ferguson, but propose nothing definite in their stead. The position taken by the first named author since 1825, is maintained (in 1849) by Dr. Gayles, in a very instructive essay in the American Medical Journal for January, carrying out the argument in minute detail, and collating with great industry a large mass of valuable facts.

In 1828, Dr. Jones, of Georgia, reproduced in terms the ancient theory—"that *moisture* under different states of temperature, acting upon the human frame under different states of the cutaneous functions and muscular relaxation, is to be regarded as the sole cause of intermittent and remittent bilious fevers." This axiom is definite enough and

comprises all the points labored by the writers above mentioned. It is easy to show that it is overlaid and encumbered with objections quite as great as those which it is offered for the purpose of evading. The low alluvial lands of Louisiana, free, according to Nott, from these fevers; and her bayous, remarkable, according to Cartwright, for their salubrity, abound in moisture. The same assertions are made concerning the extensive tracts now under drainage by the State in Hyde county, North Carolina, and the great Dismal Swamp. In the vast extent of country included within these limits, moisture must surely have an opportunity of acting upon the human frame under all different conditions imaginable. If then, these fevers are not numerous and vehement there, something else is wanting to their production.

Equally untenable is the contrasted doctrine advocated by Ferguson,—that "*paucity of water* where it has recently abandoned is the only contingency necessary in a warm climate, to the production of malarious fevers or their cause." In Africa, as travellers inform us, the very termination of the dry season, the very commencement of the rains is the precise period at which fevers begin their sway; the influence of the abundant moisture descending through the hot air being felt, as we are told, at once, or in an almost incredibly short time. In our own country it would be idle to speak of paucity of water, either absolute or comparative, in reference to our inexhaustible lakes, ponds and inland swamps, in the neighborhood of which malarious fevers annually prevail.

Of the electrical causation of these fevers suggested by Murray and others, and the modification proposed by Folchi, usually alluded to as the thermo-electrical theory, in which the whole train of phenomena are ascribed to the combined influences of abnormal calorification and disturbed electrical equilibrium, I shall only say that they are presented to us in too vague and indefinite a shape to justify our admission of them. The vast proportion of the earth's surface affected; the great diversity of soil, climate, weather and indeed all atmospheric contingencies with which the presence of these fevers is associated, preclude the possibility, it would seem, of any similar thermal or electrical states, either of the air or of the bodies of those attacked. Yet the facts accumulated in support of these views are interesting, and may be destined to assume a greater degree of importance in the future discussions of the subject than we can venture to accord to them now.

The gaseous nature of the cause of periodical fevers has been ably maintained by Professors Gardner and Daniel, who consider it to be sulphuretted hydrogen. In a very ingenious thesis, recently presented to the New York University by Dr. Leavenworth, the claims of carbonic acid are strongly set forth: and several of our western brethren are satisfied that the evil agent is nothing but carburetted hydrogen. Not to enter minutely into the controversy, I will merely state that an insurmountable difficulty in the way of either of these suppositions lies in the great variety of localities and circumstances geographical and geological in which we meet with the effects of the alleged cause. We find these fevers on the cold fens of Holland and Lincolnshire, as well as the rich rice fields of the sunny south; on the smiling hills which overlook the majestic Hudson, as well as among swamps and marshes; on the lime rock of Tennessee and Kentucky, the clay of Alabama and South Carolina, the sandy barrens of her northern sister, and the granite and sienite of the Empire State; on the volcanic tufa of Civita Castellana and the Roman Campagna, and in the very crater and on the sides of extinct volcanos, as at Bolsena and Milo. If sulphuretted hydrogen be eliminated in an African jungle or on the borders of a sluggish creek in Virginia, whence does it arise in some of the contrasted localities so often enumerated? Why is not fever, on one hypothesis always endemic at the White Sulphur and Sharon Springs; and on the other at Saratoga, Seltzer and Vichy? Why is not the presence of some of these gases always demonstrable in a malarious atmosphere? Having ascertained the poison, why cannot we at will produce with it an attack of fever of one of the known types—in other words, how is it that the observed morbid effects of none of the irrespirable gases resemble any known form of fever?

We are encouraged in our search after atmospheric influences as causes of disease since the discovery of ozone by Berzelius, and the observation on the part of Schoenlein, of its presence in the air during the epidemic prevalence of influenza. Of this widely-extended and most familiar malady it really seems to be one of the efficient sources. In this country too some of our professors have ascribed to it, hastily I apprehend, the generation of cholera. If this active state of the atmospheric oxygen does not really produce influenza, we must not omit to remark its relation to that well-characterized intermittent affection of the frontal sinus

and antrum, of which I spoke above, and which is of so frequent occurrence, so painful and annoying, and so obstinate that I wonder at its having received so little attention from medical writers. Some I think allude to it vaguely as "a masked intermittent" classing it with neuralgias; others have probably referred to it under the title of "brow ague." I have found it, though not readily yielding to any remedies, yet on the whole, best palliated and controlled by the free use of the sulphate of quinine.

The following objection seems to me fatal to all the above hypotheses of causation equally and alike, unless when they admit of being resolved into the familiar belief of a specific poison, paludal, or fungous or animalcular. All patent and obvious agencies "must produce, logically, patent and obvious effects." Changes of temperature must make notable impressions on the system, irrespirable gases cannot be breathed without notable inconvenience or derangement of system. But when a poison is applied, it is absorbed and retained, and passing into the organism, finds in due time a reception upon the tissues, or within the fluids it is adapted to affect, if inorganic. If organic, a single dose may be large enough to be promptly efficient, but more generally an interval is required for its increase, propagation and multiplication. These are principles upon which I need not dwell. Let a subject visit on a pleasant summer evening a field in our southern low or middle country, especially in the neighborhood of a rice-reserve or a stream, and sleep there; or let him rest under a tent in the desolate plain near the ruined temples of Pæstium; he may rise the next morning in undisturbed health, and continue perfectly well for a fortnight or three weeks, and then without warning, fall suddenly a victim to an overwhelming attack of fever, congestive or inflammatory. To render this mystery, if possible, still more mysterious, and laugh to scorn all attempts at explanation by an imagined accumulation of carbon in the system, a gradually augmenting determination to or congestion in the portal vessels, the vena cava, the vessels of the spleen, of the cerebro-spinal axis, or of any other organ or tissue, let such a subject, a few hours previous to the explosion of the febrile symptoms, take two or three full doses of cinchona or quinine, bringing on some fulness of the head, some buzzing in the ears or dimness of vision, and he will—with as much certainty as any thing established in therapeutics—escape the threatened attack; or avert a second if he has been sur-

prised by a first, and favored with an intermission. But the counter-poison here employed is not known to eliminate or discharge anything from the body by an outlet; we cannot affirm that it promotes the excretion of retained or accumulated carbon, hydrogen or nitrogen, through either the lungs, the liver, the kidneys or the skin; and yet it is a remedy infinitely more available than the most active evacuants or so-called depuratives. Nor is it easy to conceive how it corrects the morbid impressions made upon the organism, either thermally or electrically; its influence seems purely antidotal, and implies the previous presence of a definite poison.

We have increased gratuitously the obscurity of our present inquiry by the universal habit of ascribing too much to the agency of a cause whose very existence is matter of inference, however rational and logical that inference may be, and its alleged source and nature altogether hypothetical. Ferguson and Bancroft, and many others, Trevin among them, confound yellow fever with malarious diseases; Cook places typhus here also; and some Western writers have not hesitated to include cholera asphyxia in the same category. The ridiculous extension of the list in Macculloch needs no comment; but I will content myself with stating my belief that we have no right in this controversy to refer to any other morbid affections than intermittent and remittent fevers, in which periodicity is the prominent element, and in which the observance of regular type and period can be clearly traced, calculated and predicted. Even hepatitis, dysentery and dropsy, so familiarly comprised under this head, should, in proper strictness, be rejected as at least doubtful; nay, as in all probability, the secondary effects of malarious fevers, or the result of coincident contingencies. It is but a single summer since an epidemic dysentery of great virulence and large proportional mortality prevailed over a vast extent of territory, from the Lakes and the St. Lawrence to the Atlantic coast; from the Merrimack to the James river; affecting many districts celebrated for their usual heathfulness, and especially portions of New-England, hitherto free from the suspicion of malarious impurity, and unconscious of intermittent fever since the incursion of the Pilgrim Fathers. If we ascribe this disease to malaria on the banks of the Delaware and the Potomac, what shall we say gave rise to it along the rocky shore of Connecticut, or on the cold and barren soil of the interior of Rhode Island?

The strength of the argument in favor of the *organic nature* of malaria lies in the history of the latent and intercurrent periods of the fever which it produces. It is easy to show the failure of the received views to explain these phenomena; indeed all pathological writers feel and acknowledge frankly this defect. Now, if we suppose with Prof. (J. K.) Mitchell, an organized germ of vegetable character introduced, *qua data porta*, into the system, we may well imagine that its growth and multiplication will require a certain progress of time, during which its reproduction will augment the quantity of deleterious matter into an efficient dose. Thus we account for the incubation of the attack.—We further imagine then, either the death of the first generation of fungi, or the elimination of the great mass of them through some of the emunctories, to explain the interval of intermission; and the birth and development of successive generations to render intelligible the long train of tenaciously recurring paroxysms. We imagine too that the several types of intermittent are owing to the variety of forms of cryptogamous vegetation, some of which propagate in one period and some in another. This hypothesis is indeed most ingeniously conceived and ably maintained; it is supported by a large mass of facts, to which accumulations are almost daily making and will apply, as stated above, to a great portion of the history of malarious fever. But it does not entirely escape or surmount all the difficulties of the subject—nay, some remain, which threaten to be fatal to it, notwithstanding all the genius and learning which its author brings to its support. Thus, for example, the relations of malaria—be it what it may—are strongly, and as regards its generation and production, exclusively to *place*. But it is just as tenacious in its adhesion to the person of its subject; it seizes upon him often after very brief exposure; it enjoys within the animal or rather exclusively the *human* organism a congenial habitat where it finds all the material of growth and reproduction, and from which it is dislodged with great difficulty. Except in this relation to person, it is not transferable; it is never transported by any known mode, any variety of fomites, nor when produced in one patient does it affect another by any closeness of propinquity. But if propagated within the body, tenacious of life as it is, how can it fail to pass out through some of the emunctories into the air surrounding it; and if diffused therein, how can it fail to attack a subject just as readily as when propagated or created out

of the body? This never happens, however, and if it did happen, would be contagion or something closely analogous.

Again, the books are full of wonderful stories of the fixity of malaria on certain occasions, though at other times easily wafted on the wings of the lightest zephyr. We read of one side of a road, a street, a house, a ship, being sickly while the opposite is quite free from fever. These interesting curiosities of malarious literature are as well attested as other wonders of nature, but as I have already said, require examination and confirmation; at any rate, every one is aware of the apparently capricious action of the cause of periodical fevers, whatever that cause may be. The received theory is the butt of much sarcastic criticism in reference to this matter; but it does not seem to me to enjoy by right a *monopoly* of the taunts lavished on our ignorance of the details necessary to a clear and full understanding of this grave topic. If malaria be fungous, it must either be breathed or swallowed, absorbed by the pulmonary or gastro-enteric mucous membrane, or by the cutaneous surface; for all this, it must be diffused in the air. When thus diffused, why does it not cross a road or street, or piece of water, invading a ship "a cable's length from the shore," or spread throughout a house, a vessel's hold or cabin? Odors and dust are thus spread; smoke and vapors disperse themselves; gases permeate each other; why should not fungi, smaller than some of these particles, larger than others, obey the movement of currents of air in which they are floating?

If, with Dr. Nott, of Mobile, we adopt the animalcular nature of malaria as its most probable modus extendi, we are hedged in by the same difficulties. The supposed animalculi are no less capricious in their voluntary movements than the inorganic effluvia of Macculloch and Bancroft. Generated in a given spot, they leave it readily to attack an individual; but when abounding in the body of one person they will not leave it to assail another. They show similar caprice of resolution occasionally in adhering to fixed positions mentioned above.

Dr. Nott recognizes and points out the marked difference in many points between yellow fever and malarious remittents and intermittents, the former of which is clearly separated by cause, history, symptoms and effects, from all the periodical fevers. He renders highly probable the animalcular—he proves the organic origin of yellow fever. It is transportable in atmosphere, and in fomites. It is transfer-

able not only from place to person like malaria, but from place to place and from person to person. It is strongly contrasted with malarious fevers by exhausting the liability to its recurrence; in this respect resembling other known contagions. Yet it is hard to understand why it should adhere exclusively to one side of a ship, or why, when it does make progress, this should occasionally be so slow and seemingly reluctant. In towns it extends its domain, sometimes quickly, sometimes otherwise; going "like the tax-collector from house to house," and thus gradually widening "the infected district." We may, it is plain, refer here to the independent volition, the action from inclination of creatures capable of choice; an explanation denied us as to a fungus or an inorganic effluvium. But we must take for granted prodigious strength of wing proportionally in these minute creatures to enable them, if they rise at all in the air, to resist the movement of a breeze or strong current.

It is by no means my purpose here to go over the trite ground of a defence of the views of malaria, which, with a large body of the profession I have received, and with which every reader must be familiar. My object has been merely to collate and compare the several hypotheses that have been offered; to show that none of them are free from intrinsic difficulties; none of them fully explanatory; none of them entirely satisfactory. I conclude with the suggestion that the word malaria may still be very conveniently and properly retained to denote an unknown cause to which we ascribe certain effects, which as yet are not proved to be the result of any discovered or obvious agency.—*N. Y. Jour. of Med.*

On the Sulphate of Iron in Chlorosis. By RICHARD JARROT, M. D., of Quincy, Florida.

Chlorosis is a form of disease so common as to be recognised even by the unprofessional, by whom its subjects are often unjustly stigmatised as dirt or trash-eaters. Perhaps there is not a practitioner in the United States, who is not in the habit of treating it frequently. It is to be found in every latitude and locality, and hence, although isolated cases do not attract much notice, yet when we reflect on its universal prevalence, we shall be convinced that it forms a considerable item in the general mass of human suffering. It is common to both sexes, though a majority of such patients are girls just about or anterior to the age of puberty.

The bloated and cadaverous aspect, the dull and dejected countenance, expressive of suffering, the difficult breathing, the slow movements, the agitation above the clavicles on the sides of the neck from vehement action of the carotids, with serous effusion about the ancles, are its distinguished characteristics.

In males between the ages of 25 and 30 chronic ulcers of the legs, are frequently to be found, and I am persuaded that I can distingnish these subjects on sight.

In young girls whose menstruation is irregular, or with whom that function is not established, there is foul breath and tumid abdomen. Moreover, there is superadded hysterical, and other paroxysms incident to the female organism. Now, it is just in such cases as are described above, that the sulphate of iron is an invaluable remedy. I am not much of a believer in specifics, but I do not hesitate to affirm, after much experience, that in Chlorosis, not associated with organic disease, it is a specific. Judiciously, and in proper time administered, it will certainly arrest that morbid state or condition which left uncontrolled runs rapidly to fatal disorganization. Of all the lesions which are developed in the progress of the malady, those of the heart are most serious. "Its most common sounds are similar to those emitted after copious hemorrhages, and therefore denoting or coinciding with enfeebled circulation." Where there are dropsical accumulations and difficult breathing we may suspect disease of this organ. Should they persist in the spite of remedies, an examination will be apt to detect the morbid sounds diagnostic of hypertrophy, and thus suspicion will be converted into certainty. Local and general dropsy now ensue, which is only temporarily relieved by digitalis and other anti-hydropics.

Whatever may be the cause of Chlorosis, doubtless an impoverished state of the blood is one of its essential conditions. And this results directly from a scanty and innutritious diet. This view is confirmed by the fact that a large majority of patients of this description belong to the poorer and more improvident classes. A diet of bread and milk will bring on a weakly habit of body, and in the end, if persisted in, Chlorosis. The absence of salt in the food also predisposes to the disease. Dirt eating is looked upon by superficial observers as the cause of Chlorosis, but the truth is, it is a morbid craving, owing to the want of a wholesome and properly seasoned food. It is a mere incident, or symptom, and

not a cause. Iron in some form is known to every practitioner to be adapted to simple Chlorosis, but the sulphate in my hands has proven to be by far the best preparation of this metal. My common practice is to combine it with aloes and myrrh, though the latter article is not indispensable. It will generally be found that great torpor prevails of the whole mucous surface of the intestinal tube, and that the lower bowels are distended, sometimes to their greatest capacity with the various secretions within their cavity. Part of this returns to the circulation where it produces well known effects. It is obvious, therefore, that the bowels should be operated upon before resorting to the tonic. An excellent combination for this purpose is calomel, rhubarb and aloes. It should be repeated day after day, until thorough evacuations are procured and the stools become natural. This being effected, a pill of one grain of each sulphas ferri, aloes and myrrh is to be given thrice daily, morning, noon and bed-time. Twice a week, at bed-time, some blue mass, or other mercurial is to be substituted for the tonic pill. In ordinary cases this treatment will suffice, and it should be prolonged for an indefinite period, or until health is restored. The quantity of the sulphate in each pill should be lessened or increased, according to the capacity of the system to bear it. Sometimes nausea, griping pains and other unpleasant effects follow its use, in which event the quantity should be lessened or the wine mixture mentioned below, used in its place. I have given as much as ten grains daily, or three and one-third grains to each pill. In general, two grains to each pill may be considered as the average quantity adapted to ordinary cases. The copperas should be burnt before it is made up into pill, and this can be very conveniently done, with the aloes and myrrh by means of the extract of gentian. A neat formula for the exhibition of the iron is the following:—Port Wine, 1 qt., tinct. Aloes, iv. ℥. tinct. of Myrrh, ij℥. Dose a table-spoonful thrice daily, with the mercurial twice during the week as above directed. I have prescribed this formula in some cases of suppressed menstruation with the happiest effects. The addition of a scruple, or two of the sulphate of quinine where there are periodic indications, will be found a valuable auxiliary. In whatever way the sulphate may be used, whether in pill or solution the beneficial effects of the treatment soon appear. The secretions are restored and invigorated, especially that of the liver, whence there is a constant drain

from the aloetic impression. The swellings, if there are any, disappear, the dyspnœa is relieved, the movements become active, and the sickly complexion gives place to a healthy glow. The countenance brightens and becomes cheerful and intelligent. The muscular system resumes its firm feeling and activity. In short there is a restoration to health.

Suppressed catamenia is a troublesome complication of chlorosis, and it greatly aggravates and renders more refractory the existing symptoms. Leucorrhœa often supervenes, and the discharge increasing at every recurring period, the gravity of the case is thus materially augmented.—As is to be anticipated on these occasions, hysterical paroxysms are to be witnessed in all their various phases—fugitive pains, or those of a fixed or intermitting character now assail the irritable body. The temporal, intercostal, cardiac and lumbar regions are especial seats of suffering. The pulse becomes preternaturally frequent and there are well marked febrile exacerbations. The whole process of digestion is deranged, and there is morbid craving for alkalies.—The mind, yielding to the pressure of disease, becomes cheerless and dejected. I do not notice the minor symptoms. They stand forth in gloomy array, rendering the subject of this afflicting malady an object of distressing contemplation to her friends and of hopeless despondency to herself. Such is a rapid sketch of the disease as it has presented itself to my observation in females. In order to avoid embarrassment as to tonic and alterative remedies, and to give them free scope for action, it is essential that a judicious preliminary treatment should be employed. At the risk of being tiresome, I must here repeat my conviction of the great necessity for purgatives. They are very decidedly indicated, and they should be administered with a liberal hand. As was before intimated, mercurials should enter largely into whatever combination is employed. Equal parts by weight of calomel, aloes and rhei, in sufficient quantity to act briskly, will answer very well, and it should be given at bed time and followed next morning by oleum ricini and spirits terebinth, or sulphas magnes in an infusion of senna. Purgation should be kept up until the secretions become natural, and the abdominal walls are relaxed and yielding. Under such circumstances the quantity of mucous, bilious and fœcal matter discharged from the bowels is enormous, and the relief is signal. The warm bath is an admirable and effective auxiliary, and it should be resorted to daily, the

whole body being immersed and suffered to remain until the blood is diverted to the surface. The patient is now ready for the iron pill, and it should be given agreeably to the directions, increasing the quantity of the salt as the system will bear it. This treatment, in conjunction with out door exercise and a generous diet, will rarely fail to effect a restoration to health. A glass of good Madeira wine, in the absence of special contra-indications, will act in unison with the tonic. It has already been stated that from individual idiosyncrasy various ill effects have resulted from the pill, which has thereby rendered it inadmissible. In this contingency the wine mixture may be resorted to, and where stimulants are indicated in the case this formula should be selected from choice. In either case it is important that the mercurial treatment should not be neglected. With regard to the pains mentioned above, I have not found any special treatment necessary. They vanish, as all the symptoms do, under the iron treatment. As, however, they form, on the part of the patient, the subject of serious complaint, it may not be amiss to allude briefly to them in this place. In the beginning of my practice allured by the very flattering accounts of the miraculous cures by counter irritation, of a host of morbid sensations ascribed to spinal irritation, with which it was the fashion of the periodicals to favor the profession, I became a diligent manipulator of the spinal column. No sooner was the tender spot made or discovered than down went the scarificator, the mustard or the blister. But success by no means equalled my expectations, and I was led finally to conclude, that the cures so called, and which were exhibited in such glowing terms, were achieved solely through the medium of the imagination. I regard the pains of chlorotic patients as purely sympathetic, depending on functional derangement of the organs, and especially of the stomach and uterus. These being restored to their normal condition, the morbid associations radiating from them necessarily come to an end. No allusion is now made to such as are connected with organic disease. Where it is desirable to treat them specially, a writer in a back number of the Medico-Chirurgical Review, in an article on Chlorotic fever recommends emetics of ipecac. Where these fail a small blister is to be applied to the spot, and after the removal of the cuticle half a grain of morphine is to be sprinkled on the denuded surface. This, the writer affirms, to be a specific. The treatment is doubtless applicable, and in obstinate cases should be tried, but in my

own practice I have never found it necessary to adopt it.—It has already been remarked, that where dropsical accumulations prove obstinate there is reason to suspect incipient disease of the heart, and that this forms the most serious complication of Chlorosis. In the end indeed it proves to be the principal malady. Enlargement of the heart is sure to be followed by effusion within the pericardium. Ascites and anasarca follow in rapid succession. Although in this stage all treatment is unavailing as regards its ultimate termination, yet life may be prolonged, and by judicious management, even rendered tolerable. It does not follow that because the heart is involved, the case is to be abandoned, much less those where it is not positively certain. For Watson affirms that some of the sounds regarded as diagnostic of organic disease may be present, and yet the patient may recover under tonic treatment. I have alternated the depletory with the tonic plan in such cases with decided advantage to the patient. In my hands the following prescription has been of signal service to subjects laboring under such lesions: bi. tart. potass, nitris potass, cinchona aaj ℥ss, sulphate iron, ss ℥ss, whiskey or gin, oij. To be mixed and well shaken up. Dose from one to six teaspoonsfull daily.—Where the dropsy is independent of a diseased heart, the case is under the control of remedies. In order to expel the effusion every practitioner has his own mode. My own is to operate through the bowels. For this purpose I have found the following to be successful: aloes socot, xxiv gr., proto-chlor. hydr., xxxxviii gr., antim. tart. ij gr., rad scillæ, xxiv gr. To be made into 24 pills. Where the habit is cold and sluggish a grain or two of Cayenne pepper to each pill, enhances its efficacy. At bed-time from 2 to 6 of these pills are to be given to be followed next day by bitartrate of potash and jalap until free serous evacuations were produced. The infiltrated tissues soon sink to their natural dimensions, and now the iron pill is to be used. Should there be a recurrence of the swellings the same practice is to be repeated, which is to follow up by the tonic. I speak from actual experience when I say that this treatment will never fail, it being understood that no reference is made to cases which have advanced a change of structure.

It is of importance that the diet should be generous. It cannot be too rich provided it be digested. That the blood is greatly impoverished, is manifest from the superabundance of serum and the comparative absence of the crassamentum,

and it requires a nutritious diet to furnish the elements of healthy blood. To maintain the animal heat, warm and comfortable clothing is indicated, and to give activity to the various secretions regular exercise is to be enjoined. Among the black population of the South there are numerous subjects to whom the administration of the iron pill would be an invaluable blessing. It would be tedious to describe such cases minutely. In general they are advanced in life, the bowels are habitually confined, there is headache, suffused and jaundiced eyes, slow movements, sometimes palpitations and a pale complexion, as if the patient had been secluded from solar light. To use their own expression, they are neither sick nor well. In all such cases the pill acts like a charm, and the improvement arising from its use is striking and signal. I am no enthusiast in regard to remedies, and I have not the exalted opinion of their potency that I once entertained, but I should think it difficult to exaggerate the merits of the sulphate of iron in chlorosis. It laid on my shelf for years before I used it, and at length it was by chance only that I was induced to employ it. The young practitioner in his search for tonics is too apt to select such alone as produce an immediate impression, and to overlook this humble but really potent article of the materia medica.

It would be presumption in me to suppose that there is any thing contained in this paper with which the elder members of the profession are not perfectly familiar. I have endeavored to state clearly some practical details, and these I conceive to be of greater interest and value by far than the most learned disquisition. In the disease described above, in whatever guise it may appear, the sulphas ferri is undoubtedly the best of all the ferruginous preparations. And it seems to have a most happy effect associated with aloes. The combination is one of those happy hits which it is the good fortune of the practitioner occasionally to meet in medicine. Iron is the remedy par excellence in chlorosis, but I am not aware that it is recommended in the books in the manner advised in this paper.—*Charleston Medical Journal.*

Point of a Sheath-Knife in the Back Nine Years—Removal. By GEORGE H. GAY, M. D.

In May, 1840, Capt. ———, the subject of this operation, was walking quietly along deck with his hands in his pockets, when he felt a sudden and cutting blow on his left shoulder. He turned round immediately, and saw one of his crew, a Manilla man, flourishing his sheath-knife, covered with blood. A long and hard scuffling took place before the man was secured. A short time afterwards, the knife was found with quite a piece of the *point broken off*. The captain did not know, at the time, whether this piece was broken off in his shoulder, or during the scuffling; though shortly after, the "idea possessed him" that the point was *in* him.

The wound was not very painful nor troublesome; there was no feeling of any foreign substance present, it discharged matter freely, and was entirely closed in three weeks after the assault. The cicatrix looked firm, entire and healthy, about two and a half inches in length. The shoulder afterwards felt well, though there was an occasional dull, indistinct pain in the region of injury, but never sharp nor pricking. The motions of the arm and body were free from any uneasy feeling.

In the following February, patient slipped and fell down the companionway stairs, hitting his left shoulder against each successive step. Almost immediately, there was great swelling of shoulder, with acute pain. The swelling increased so much that he "thought it would break." Arriving at Singapore, ten days after the fall, he was examined by a surgeon. A free incision was made in swelling, and a large quantity of healthy-looking matter was discharged. It was then probed, but no foreign substance detected.

From that time, with the exception of three or four days, to the 16th May, 1849 (when he consulted me), there has remained an opening, communicating with a sinus, with greater or less discharge, according to circumstances. During these three or four days, the opening was closed, and it was exceedingly painful, "till it broke." He has consulted many surgeons here and abroad, and always asked if the piece of knife could be there. They all said no, probably because the probe never struck upon it, and such a length of time had elapsed since injury. Every variety of treatment has been recommended and adopted, of which strong

injections of nit. argent., tinct. iodine, and bandaging and setons were among the most prominent.

A long sinus remained on the 16th of May, when he consulted me. The appearance of the parts was the following:—Redness of the skin, with thickening of it and subjacent tissues, below spine of scapula; about two inches below commencement of acromial process, there were some pale, flabby, elevated granulations, in the centre of which was an opening, the size of a pea, admitting easily a common director, which passed *five inches* obliquely downward along scapula, and came out of an opening made by seton; no tenderness, on pressure, in any part of it. At this time, as nothing had been said to me about the knife being *broken*, merely saying that he had been *stabbed*, my attention was directed chiefly to detect some *necrosed* portion of the scapula, a piece of dead bone being considered sufficient to keep open the sinus. But nothing of the kind was found, nothing but a long sinus.

The sinus was freely laid open about five inches. No necrosed bone nor foreign substance was touched. The probe was passed along inferior surface of wound, but could not be insinuated into any other opening. The wound was soon filled up with healthy granulations, and the whole cicatrized, except a small spot at the most dependent part of the wound, where, after a while, pus was discharged, by pressure from below upwards.

The 6th of August, when he came to me again, there was a flabby, pale, nipple-like projection, in the above mentioned spot, with an opening. Introducing the probe, another sinus was found, *five inches long*, going nearly vertically downwards. I told patient this also must be laid open. Dr. Hayward, who saw patient at my office, was of the same opinion.

August 9th, in presence of Dr. Hayward, the sinus was laid open to the extent of *five inches*. No foreign substance was felt along track of incision. Passing finger along the lower portion, it entered, quite easily at first, still another sinus, going nearly at right angles to it. The probe introduced here, touched some foreign substance. *It could not be hit, or rather felt, every time.* The feel was rather peculiar; at one time rough, and at another smooth, and extremely difficult to distinguish from the smooth, hard lining membrane of sinus. It was determined to lay this open, which was done to the extent of over *four inches*. Patient

said it felt so sore that no further examination should be made then. A compress dipped in cold water, with bandage, was applied, and he went home.

The next morning, while dressing and examining wound, some sharp substance pricked my finger. Introducing a pair of forceps in a small cavity, on each side of the most dependent part of incision, the piece of *knife* was extracted, *an inch long and wide, black*, with the *point rough* and *bent* (probably from the blow on the scapula), and *fifteen inches* or *more* from the *original seat of injury*. This would have been found, the day of the operation, if he had not been "too sore" to examine. The smoth, flat surface of the knife lay upon muscle, parallel with the direction of the sinus.

This case is interesting, and somewhat remarkable, from the fact—1st, that the wound was entirely closed in *three weeks* after injury, and remained so for *nine months*, till the fall down the "companionway." 2d, that patient had experienced so little suffering from such a sharp-pointed, triangular-shaped substance. One would have supposed that the varied motions of the body would, at times, bring one or more of the points in such a position as to produce a pricking sensation. 3d, that it remained *nine years*, without any sensible alteration in size. (Would it have remained so unaltered, if it had been in the stomach?) We know that lead frequently remains a long time in the body; that a new membrane forms around it, on which the lead does not act, and which, at the same time, protects the surrounding parts from being injured. Weight, position and shape are the most powerful causes for the travelling about of substances; if round or rough and heavy, its tendency will be in a downward direction, modified by the position and motions of the body; if sharp and light, the motions of the body place it in this or that course, the very sharpness of the point or points preventing any new membrane from keeping it in one place, as in the case of needles. 4th, that the feel of a foreign substance was not constantly given to the probe, but only when it touched the *rough* part of the knife; the coating, so to speak, of pus upon the *smooth* surface rendered it difficult and almost impossible to say when the probe touched the hard membrane of sinus, and when the smooth surface of the knife, the feel of both was so much alike.—***Boston Medical and Surgical Journal.***

Lemon-Juice in the Treatment of Rheumatism and Dysmenorrhœa.

Mr. Middleton had lately tried, with much advantage, the use of lemon-juice in acute rheumatism. These cases possessed the usual characteristics of the disease, and in some instances were secondary attacks. In some of the cases the first attack had lasted several weeks before the acute symptoms had been relieved. Under the influence of lemon-juice, however, the pain was usually much mitigated, and in some instances removed in a few hours. He administered a purgative in the first instance, and then gave half an ounce of lemon-juice every four hours. As he had usually given alkalies with benefit in cases of a similar description, he was at a loss to understand how lemon-juice could act so beneficially.

Mr. Headland said that the profession were indebted to Dr. G. O. Rees for the use of this medicine in rheumatism. It had been employed by that physician, and by Dr. Babington, extensively in Guy's Hospital. The fact was, that it had been too much the fashion to connect the cause of rheumatism with cold. It was evident, from the success of the treatment of rheumatism by lemon-juice, that its origin was due to other causes. A great variety of remedies had been used in the cure of rheumatism, and he (Mr. Headland) believed that other agents acted as beneficially as lemon-juice when they exerted the same action on the blood. Reasoning on the effect of lemon-juice in cases of rheumatism, he had asked himself whether this medicine might not be employed with equal benefit in other diseases. He had found it of most essential service in cases of obstinate dysmenorrhœa. He related one case in which all other remedies had been ineffectual, and in which the continued use of this remedy had effected a cure. It was remarkable that lemon-juice had not a tendency to act on the bowels, and where it had, or the constitution was in such a state as to allow it to be carried off by that channel, the medicine did not exert its special influence.

Dr. Golding Bird hoped the time was not far distant when we should treat disease according to its essential characters, rather than in reference to its name. Now, the cases mentioned by Mr. Middleton evidenced no paradox in regard to the treatment of rheumatism by alkalies and acid; for the lemon-juice and the carbonate of soda were essen-

tially the same in their effects upon the system. He then proceeded at some length, which we regret our space does not allow us to report fully, to illustrate the effects of a morbid matter in the blood in the production of a train of symptoms which were attributed often to another cause; or, rather, the condition of the blood was not looked upon as the real and essential link in the chain of causation. Yet this fact could be evidenced by an examination of the secretions, particularly the urine. He illustrated his views with much force and ingenuity by a case of ague and a case of rheumatism. In both these cases there was a *materies morbi* in the blood, which, as the disease receded, was relieved by being carried off by the kidneys, a larger and larger quantity of solids being found in the urine. This he had always found to be the case in Guy's Hospital, in which he had treated these diseases on the principle of removing the *materies morbi*. He believed that a similar condition of the blood to that which obtained in rheumatism was present in the patient affected with dysmenorrhœa mentioned by Mr. Headland. Now, in rheumatism, how were we to get rid of this morbid matter in the blood? Opium would remove it to some extent; colchicum would remove it. But it was taking a more common-sense view of the subject to employ some remedy which would eliminate the morbific matter from the circulation at once, by carrying it off by the urine. How, then, were we to effect this? Why, in acute rheumatism, by the administration of cream of tartar, citrate of potash, lemon-juice, or carbonate of soda. There was little difference between the action of these neutral salts; but lemon-juice, which was a super citrate of potash, was more quickly absorbed into the blood, and consequently more active in effecting a cure. He had, however, in his own practice, been in the habit of employing the acetate of potash in these cases. This salt, with a mixture of sugar, water, and essence of lemon, acted with marvellous rapidity. In addition to this, given every four hours, he administered five grains of the soap pill, with opium, night and morning; for this not only relieved pain, but prevented the other remedy being carried off by the bowels. These, with the vapor-bath, constituted his treatment of rheumatism, and the result had been always successful. Soda and lemon-juice equally produced an alkaline condition of the blood, but he prefered the acetate of potash, as it was not liable to be neutralized by the presence of acid in the stomach. In respect to the treat-

ment of ague, he never began at once with an anti-periodic. He always disgorged the liver by the employment of mild mercurials, and then some quinine. He mentioned one case, however, in which the quinine failed; he then gave the acetate of potash, and the case was cured. By these remedies we immediately altered the character of the blood, and cured the disease—a much more practical and philosophical mode of proceeding than that of treating disease according to name.—(*London Med. Gaz.*)—*Charleston Med. Jour.*

On Cod Liver Oil in Phthisis.—By Dr. C. J. B. WILLIAMS.

Dr. Williams has retained notes of 234 cases of phthisis in which he has given cod liver oil. In nine cases the oil disagreed, and was discontinued. In 19, although taken, it appeared to do no good, whilst in 206, out of 234, its use was followed by marked improvement, varying in degree from temporary retardation of the progress of the disease, and a mitigation of distressing symptoms, to a more or less complete restoration to apparent health.

The most numerous examples of decided and lasting improvement occurred in patients in the second stage of the disease. Even in a few days the cough was mitigated, the expectoration diminished in quantity and opacity, the night sweats ceased, the pulse became slower of better volume, and the appetite, flesh and strength, were gradually improved. There was generally a diminution and gradual cessation of the crepitus; the breath-sound becoming drier and clearer; but the dullness and tabular character of the breath and voice sounds seldom exhibited any marked decrease till after several weeks' use of the oil, in conjunction with counter-irritation.

In the third stage, the effects of the oil are often very marvellous. The whole number of cases with one or more cavities, as indicated by physical signs, which, under Dr. Williams' hands, manifestly improved, amounts to sixty-two. In thirty-four of these there was continued improvement up to the last reports. Eleven cases, which exhibited decided improvement for a time, have since again declined or terminated in death. Of the remaining seventeen, he has had no recent report, and does not know whether the amelioration has been permanent or not.—*Monthly Journal.*